



**FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.**

**Preliminary Assessment  
of an  
Identified Illegal Drug Laboratory  
Associated with the Property Located at**

**397 South Taylor Avenue  
Louisville, CO**

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## EXECUTIVE SUMMARY

On Friday March 13, 2009, members of the Louisville (Colorado) Police Department conducted law enforcement activities at 397 South Taylor Avenue, in Louisville, Colorado. The address is currently occupied by Coinstar, Inc. During that action, law enforcement personnel were directed to a 2005 Dodge Sprinter transportation van located on the premises, and registered to DL Peterson Trust. During a lawful search of the vehicle by law enforcement personnel, an unspecified quantity of methamphetamine was discovered in the vehicle. Also during the search, law enforcement personnel located drug paraphernalia. The controlled substances and the drug paraphernalia were recorded as belonging to Jeffery Naylor.

Based on this information:

- An illegal drug laboratory, as that term is defined in CRS §25-18.5-101, existed in the van, from at least March 13, 2009 forward, and continues to exist at the time of this report.
- A Class 1 Public Nuisance, as defined in CRS §16-13-303(1) existed at the subject property from March 13, 2009 forward, and continues to exist at the time of this report.
- “Discovery” and “Notification,” as those terms are used in CRS §25-18.5-103(1)(a) were issued on March 13, 2009, by Louisville Police personnel.

On Friday, March 20, 2009, Forensic Applications Consulting Technologies, Inc. (FACTs) performed a State mandated Preliminary Assessment at the subject property. Based on that assessment, FACTs has made the following observations:

- The property exhibits overt noncompliance with Colorado’s methamphetamine cleanup standards.
- Evidence of widespread methamphetamine contamination exists within the vehicle.
- Evidence of widespread methamphetamine contamination exists on the personal items remaining in the property.
- Entry into the vehicle is prohibited pursuant to CRS §25-18.5-104 and Boulder County ordinance section “Occupation prohibited.”
- Removal of any and all personal items from the van (regardless of ownership) is prohibited except if removed pursuant to the restriction found in CRS §25-18.5-103(3).
- Any and all claims of ownership of personal items remaining in the van by any person including Mr. Jeffery Naylor, not authorized by the registered owner or his agent, are not valid. The ownership of ALL items remaining in the van, including those



personal items which once belonged to Mr. Naylor, transferred to the registered owner of the vehicle at the end of business day, March 23, 2009, pursuant to CRS §25-18.5-103(1)(b) which states:

*An owner of any personal property within a structure or vehicle contaminated by illegal drug laboratory activity shall have ten days after the date of discovery of the laboratory or contamination to remove or clean his or her personal property according to board rules. If the personal property owner fails to remove the personal property within ten days, the owner of the structure or vehicle may dispose of the personal property during the cleanup process without liability to the owner of the personal property for such disposition.*

- There is sufficient evidence within public record for the Governing Body with jurisdiction over the residence of Jeffery Naylor to declare the Naylor residence and personal vehicle(s) of Mr. Jeffery Naylor “potentially contaminated” property, thus meeting the definition of an illegal drug laboratory. There is sufficient evidence within public record for the Governing Body with jurisdiction over the Naylor residence to declare that the Naylor residence poses a significant public health hazard and meets the definition of an illegal drug laboratory pursuant to CRS §25-18.5-101, and a Class 1 Public Nuisance as defined in CRS §16-13-303(1).
- The private vehicle(s) occupied and used by Jeffery Naylor are potentially contaminated with methamphetamine, and now pose a significant public health hazard and meet the definition of an illegal drug laboratory pursuant to CRS §25-18.5-101, and a Class 1 Public Nuisance as defined in CRS §16-13-303(1).

## **REGULATORY REQUIREMENTS**

### ***Federal Requirements***

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

### ***State Requirements***

According to State statutes, 25-18.5-101(2)

*“Drug laboratory” means 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.*

According to State regulation 6 CCR 1014-3:

*“Property” means anything that may be the subject of ownership or possession, including, but not limited to, land, buildings, structures, vehicles and personal belongings.*



This definition is consistent with State Statute wherein CRS §25-18.5-101(3) states:

*"Property" means anything that may be the subject of ownership, including, but not limited to, land, buildings, structures, and vehicles.*"

In this case, the vehicle was used for illegal storage, possession and use of illegal drugs, and therefore, meets the definition of an illegal drug laboratory.

## **Local Ordinances**

On January 7, 2009, Boulder County adopted Ordinance 2006-1 concerning methamphetamine contamination in vehicles and structures. Certain aspects of the Boulder County ordinance are contrary to State requirements. Since State regulations and State statutes supersede county regulations, FACTs has performed this assessment in full compliance with State regulations and State statutes.

The ordinance creates conflicts with state regulations and state statutes through inconsistencies with those regulations and would not likely be found lawful upon legal challenge. For example, the Boulder County ordinance explicitly states that only a "certified industrial hygienist" (*sic*) is permitted to perform the required work.<sup>1</sup>

After the author of this Preliminary Assessment (Connell) wrote the foundational language used for the original methlab assessment protocols for the State of Colorado regulations, Connell was called to testify before the Colorado Board of Health during the approval process. During that hearing before the State Board of Health, the committees tasked with developing the regulations pursuant to CRS §25-18.5-103 were informed by the Colorado Board of Health that the board would automatically and summarily reject the proposed regulations regardless of any other provisions that if the new regulations included a provision that only a Certified Industrial Hygienist would be permitted to perform the assessment work. Therefore, clearly, the Boulder County ordinance stands in stark contrast to the will of the Colorado State Board of Health.

The Colorado Board of Health went on record saying that certification in industrial hygiene by the ABIH was no longer considered a mark of competency in industrial hygiene. Furthermore, in 2003, the ABIH (which is a private club of Industrial Hygienists) attempted to pass legislation that would define an Industrial Hygienist exclusively as a Certified Industrial Hygienist. The People of Colorado and indeed many CIHs opposed the bill, and instead passed House Bill HB03-119 which became codified in Colorado's Revised Statutes (CRS §24-30-1402), which explicitly placed ALL Industrial Hygienists on equal footing, regardless of whether they chose to join the private organization called the ABIH or not. In the state bidding process it is illegal to differentiate between the two terms.

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<sup>1</sup> It is important to note that the ordinance failed to capitalize the term "certified industrial hygienist" which is merely a copyright protected term, NOT a statement of qualifications, and can only legally be used in an uppercase fashion.



The term “Industrial Hygienist” as used in State regulations and State statutes has already been defined in State statutes (CRS §24-30-1402) and provides the criteria needed for one to call themselves an “Industrial Hygienist” and perform work in methlab related issues. The State statutes makes no distinction in competency for a CIH versus a non-ABIH member. “Certification” merely indicates that the particular Industrial Hygienist has chosen to join a private club (the ABIH) or not join the club. There is no indication that being a CIH provides any degree of competency in industrial hygiene (as observed by the Colorado Board of Health).

Furthermore, some Industrial Hygienists in the State of Colorado point to the fact that there are no CIHs in the state of Colorado who belong to a minority group and any capricious provisions, such as those found in the Boulder County “Procedures” preferentially requiring a CIH may be viewed as a violation of the Civil Rights Act.

During a recent methlab case, the FACTs Industrial Hygienist, Connell, provided expert witness testimony on behalf of a Northern Colorado Municipality who was in litigation against an homeowner who had hired a CIH to perform methlab work. The CIH in question had attempted to perform a “Preliminary Assessment” of a methlab. The CIH believed that since he was a CIH with a PhD, he was automatically authorized to perform the work. The assessment performed by this individual was so grossly incompetent, that the final assessment was entirely unusable, and failed to meet even the minimum elements of a “Preliminary Assessment” and was ultimately rejected by the courts. Ultimately, it was shown that the CIH lacked any and all training in aspects of illegal drug labs was therefore, not even authorized to perform the work in the first place.

There is no foundation to support Boulder County’s presumption that a “CIH” has any better grasp of industrial hygiene than does any other fully qualified Industrial Hygienist in the State of Colorado. Particularly, if the Industrial Hygienist’s certification is in aspects of noise, ergonomics or air pollution or other unrelated aspect of industrial hygiene. Indeed, the Industrial Hygienist who developed and wrote the seminal language for Colorado’s mandatory methlab assessment protocols is not a CIH.

According to Boulder County Ordinance:

**Law enforcement notice to other authorities**

*Law enforcement or other authorities who identify the existence of an illegal methamphetamine laboratory after the effective date of this ordinance shall promptly notify Boulder County Public Health, Boulder County Land Use, Building Division, and if appropriate, Child Protection Services. If the methamphetamine laboratory is located within an incorporated town or city, Boulder County Public Health shall be notified, and if appropriate, Child Protection Services.*

In this case, although Louisville PD failed to notify Boulder County Department of Health, discovery and notification occurred simultaneously when law enforcement personnel observed and/or retrieved suspected controlled substances and/or drug paraphernalia from the vehicle. It is likely that most, if not all, Boulder County law



enforcement agencies are unaware of the Boulder County Health ordinance, and their obligations therein.

## Posting

According to Boulder County ordinance:

### **Declaration of property as a public health nuisance**

*A property identified as the site of an illegal methamphetamine laboratory shall be declared a public health nuisance and unfit for human habitation or use. A warning sign shall be posted on the entrance of the affected part of the property by law enforcement, Public Health, the Chief Building Official or his designee. With respect to a vehicle, the warning sign shall be posted on the front windshield.*

Although the property was not posted as required during our site assessment, it is our understanding that the Boulder County Department of Health was not notified by Louisville PD.

## Prohibition of Entry

In addition to State statutes, and State regulations, Boulder County ordinance required the following:

### **Occupation Prohibited**

*Upon the issuance and posting of a Declaration of Public Health Nuisance, all occupants of such building or structure shall immediately vacate the premises, and such vehicles shall be impounded by the police. With the exception of persons evaluating the contamination level, remediating the contamination, or conducting fire or police activities, no person shall occupy, enter or allow occupancy or entrance to a building or structure which has been declared a public health nuisance, and no person shall occupy or drive a vehicle which has been declared a public health nuisance, until such declaration is revoked or modified to allow occupancy. All who enter must have the required health and safety training, and wear appropriate personal protective equipment. Removal of the posted Declaration of Public Health Nuisance by anyone other than the Building Official, Public Health or law enforcement authorities is prohibited.*

Although the vehicle was not impounded as required, the prohibition of entry remains unchanged by State regulation, and State statutes, and is reinforced by County ordinance.

## 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 Preliminary Assessment, and those findings, enter the public domain and are not subject to confidentiality.<sup>2</sup>

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<sup>2</sup> Section 8.26 of 6 CCR 1014-3



The Preliminary Assessment must be conducted according to specified requirements<sup>3</sup> 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 “Preliminary Assessment” pursuant to those regulations. Included with this discussion is a read-only digital disc (CD). The disc contains mandatory information and photographs required by State regulation for a Preliminary Assessment. This Preliminary Assessment is not complete without the CD and all associated support documents found in the appendices.

Pursuant to CRS §25-18.5-105, the subject property was deemed a “public health nuisance.” Pursuant to CRS §16-13-303, the subject property and all of its contents was 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).

### ***Discovery and Notification***

Discovery and Notification occurred at the subject property by virtue of the Law Enforcement Actions on March 13, 2009. There is no formal notification process described by state statutes or state regulations. Rather, CRS 25-18.5-103(1)(a) states:

*Upon notification from a peace officer that chemicals, equipment, or supplies indicative of an illegal drug laboratory are located on a property, or when an illegal drug laboratory used to manufacture methamphetamine is otherwise discovered and the property owner has received notice, the owner of any contaminated property shall meet the cleanup standards for property established by the board...*

### ***Preliminary Hypothesis***

During the Preliminary Assessment, the initial hypothesis is made that the subject area is clean and data will be 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 compels the Industrial Hygienist to accept the null hypothesis and declare the area non-compliant.<sup>4</sup> 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 by state regulation during a Preliminary Assessment; 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:<sup>5</sup>

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<sup>3</sup> Section 4 of 6 CCR 1014-3

<sup>4</sup> This language and emphasis is verbatim from Appendix A (mandatory) of 6 CCR 1014-3

<sup>5</sup> Section 4.6 of 6 CCR 1014-3





*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, independent of any testing performed by FACTs, overt information existed from available law enforcement agencies which confidently challenged the Primary Hypothesis.

The sampling and analysis performed by FACTs confidently confirmed the presence of overt methamphetamine contamination in the vehicle.

The totality of the circumstances challenged the hypothesis that contamination was absent from all portions of the vehicle and based on the totality of circumstances, including objective sampling, we were not able to support the initial hypothesis and, therefore, we accept the null hypothesis and declare the vehicle and all remaining contents therein as non-compliant.

**Elements of the Preliminary Assessment**

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

Mandatory Final Documents 6-CCR 1014-3	DOCUMENTATION	Included
§8.1	Property description field form	<i>Carl</i>
§8.2	Description of manufacturing methods and chemicals	<i>Carl</i>
§8.3	Law Enforcement documentation review discussion	<i>Carl</i>
§8.4	Description and Drawing of Storage area(s)	<i>Carl</i>
§8.5	Description and Drawing of Waste area(s)	<i>Carl</i>
§8.6	Description and Drawing of Cook area(s)	<i>Carl</i>
§8.7	Field Observations field form	<i>Carl</i>
	FACTs Functional space inventory field form	<i>Carl</i>
§8.8	Plumbing inspection field form	NA
	FACTs ISDS field form	NA
§8.9	Contamination migration field form	<i>Carl</i>

**Table 1  
Inventory of Mandatory Elements and Documentation**



Mandatory Final Documents 6-CCR 1014-3	DOCUMENTATION	Included
§8.10	Identification of common ventilation systems	<i>C</i>
§8.11	Description of the sampling procedures and QA/QC	<i>C</i>
§8.12	Analytical Description and Laboratory QA/QC	<i>C</i>
§8.13	Location and results of initial sampling with drawings	<i>C</i>
§8.14	FACTs health and safety procedures in accordance with OSHA	<i>C</i>
§8.15 -§8.19	Not applicable	NA
§8.20	FACTs Pre-remediation photographs and log	<i>C</i>
	FACTs Post-remediation photographs and log	NA
§8.21	FACTs SOQ	<i>C</i>
§8.22	Certification of procedures, results, and variations	<i>C</i>
§8.23	Mandatory Certification Language	<i>C</i>
§8.24	Signature Sheet	<i>C</i>
	Analytical Laboratory Reports	<i>C</i>
	FACTs final closeout inventory document	NA
	Available Law Enforcement documents (confidential - by reference)	NA
	FACTs Field Sampling Forms	<i>C</i>

**Table 1 (cont)  
Inventory of Mandatory Elements and Documentation**

***Review of Law Enforcement Documentation***

As part of the Preliminary Assessment, FACTs is required by regulation<sup>6</sup> to review available law enforcement documents pertinent to a subject property. During this project, the Louisville Police Department exhibited the highest level of professionalism and cooperated fully with our Preliminary Assessment; even to the extent of going out of their way to provide personal expedited service for our request for information. FACTs was given the opportunity to review available law enforcement documents, and to interview Louisville personnel with direct knowledge of the case.

***Governing Body***

Based on the best information available, Boulder County Public Health is the “Governing Body” as defined in CRS §25-18.5-101:

Boulder County Public Health  
Administration/Environmental Health Site  
3450 Broadway  
Boulder, CO 80304  
Att: Michael Richen, CIH, Indoor Air Quality Specialist

<sup>6</sup> 6 CCR 1014-3 (Section 4.2)



## Sample Collection

A recurring myth amongst the general public is that if sampling (such as that performed at the subject vehicle) 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 anywhere in State statutes or State regulation. If an Industrial Hygienist chooses non-mandatory sampling (such as that performed at the vehicle) during an industrial hygiene evaluation, and those samples result in ANY contamination, even below the value of  $0.5 \mu\text{g}/100\text{cm}^2$ , then the property must, by state regulation, be declared a methlab.<sup>7</sup> This is due to the fact that cursory sampling does not meet the data quality objectives upon which the State clean-up level of “ $0.5 \mu\text{g}/100\text{cm}^2$ ” value is based.

In any event, contrary to erroneous statements frequently repeated, the mere value of “ $0.5 \mu\text{g}/100\text{cm}^2$ ” is not the State of Colorado cleanup level, but rather is the value upon which the final cleanup level is based and which is described in the mandatory Appendix A of the State regulations. The Colorado clearance level of “ $0.5 \mu\text{g}/100\text{cm}^2$ ,” frequently misquoted by members of the general public, applies exclusively as *prima facie* evidence of decontamination at the end of a project<sup>8</sup> 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.*<sup>9</sup>

In a recent unofficial opinion issued by the State of Colorado Department of Public Health and the Environment,<sup>10</sup> the state opined that even when the cursory concentrations are far below state mandated limits:

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<sup>7</sup> *Ibid.* Appendix A

<sup>8</sup> Colorado Department Of Public Health And Environment, State Board Of Health, *Regulations Pertaining to the Cleanup of Methamphetamine Laboratories*, 6 CCR 1014-3.

<sup>9</sup> *Ibid.*

<sup>10</sup> Email transmission from Craig Sanders to FACTs, January 31, 2008, quoting Coleen Bresnahan, CDPHE, regarding a property at 32548 Kinsey Lane Conifer, Colorado.



*"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."*

For the purposes of this assessment, FACTs collected a variety of samples for quantitative chemical analysis. We collected primarily two types of samples: vacuum samples and wipe samples.

## **Vacuum Samples**

The vacuum samples were collected in accordance with standard industrial hygiene microvacuum sampling procedures,<sup>11</sup> and in a manner consistent with Colorado State regulations.

Prior to the collection of the samples, the Industrial Hygienist donned fresh surgical gloves. After an area had been selected and measured, a commercially available 25 mm diameter, extended-cowl cassette, fitted with mixed cellulose ester (MCE) membrane was attached to a commercially available personal sampling industrial hygiene pump. The pump was adjusted to draw approximately four liters of air per minute at approximately 2 inches of water column. The cassette was opened to present an "open face" and the selected area was vacuumed with the cassette. Samples were maintained in control of FACTs personnel at all times, and submitted via FedEx to Analytical Chemistry, Inc. in Tukwila, Washington.

Currently, in the State of Colorado, there are no regulatory limits by which one may compare vacuum results; the interpretation of the results is left within the realm of professional judgment of the Industrial Hygienist. FACTs interprets vacuum samples in the context of contaminant density.

The interpretation of the results of the vacuum samples takes into account the size of the surface area sampled, the mass of material removed from that surface, and the mass of contaminant in the removed material. 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, FACTs calculates and reports a "density" of methamphetamine. The "density" used here is expressed in units of micrograms of methamphetamine recovered per milligram of removable material, per unit area of surface ( $\mu\text{g}/\text{mg}/\text{cm}^2$ ) and is designated with the Greek letter rho ( $\rho$ ).

Based on our database of vacuum samples ( $n=52$ ) from previous methamphetamine contaminated properties, FACTs has set a qualified density "threshold of concern" of  $0.5 \rho$ . That is, if the methamphetamine density in the carpet exceeds  $0.5 \rho$ , FACTs will make the unqualified 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  $0.5 \mu\text{g}/100\text{cm}^2$  – the resemblance of the two values is purely coincidental.

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<sup>11</sup> For example, see ASTM Method D 5756-02



## Wipe Samples

Wipe samples were collected in a manner consistent with the State of Colorado regulations. The wipe sample medium was individually wrapped commercially available Johnson & Johnson™ gauze pads (FACTs Lot # G0901). Each pad was moistened with reagent grade methyl alcohol (FACTs Lot # A0801). The sampling media were prepared in small batches; the blanks (designated in this discussion as “BX”) and the actual sample kit to be used on any subject property is not known in advance. Each sampling medium is prepared in a clean environment and inserted into an individually identified polyethylene centrifuge tube with cap.

Prior to the collection of each specific sample, the Industrial Hygienist donned fresh surgical gloves, to protect against the possibility of cross contamination. The proposed sample area was delineated with a measured outline.

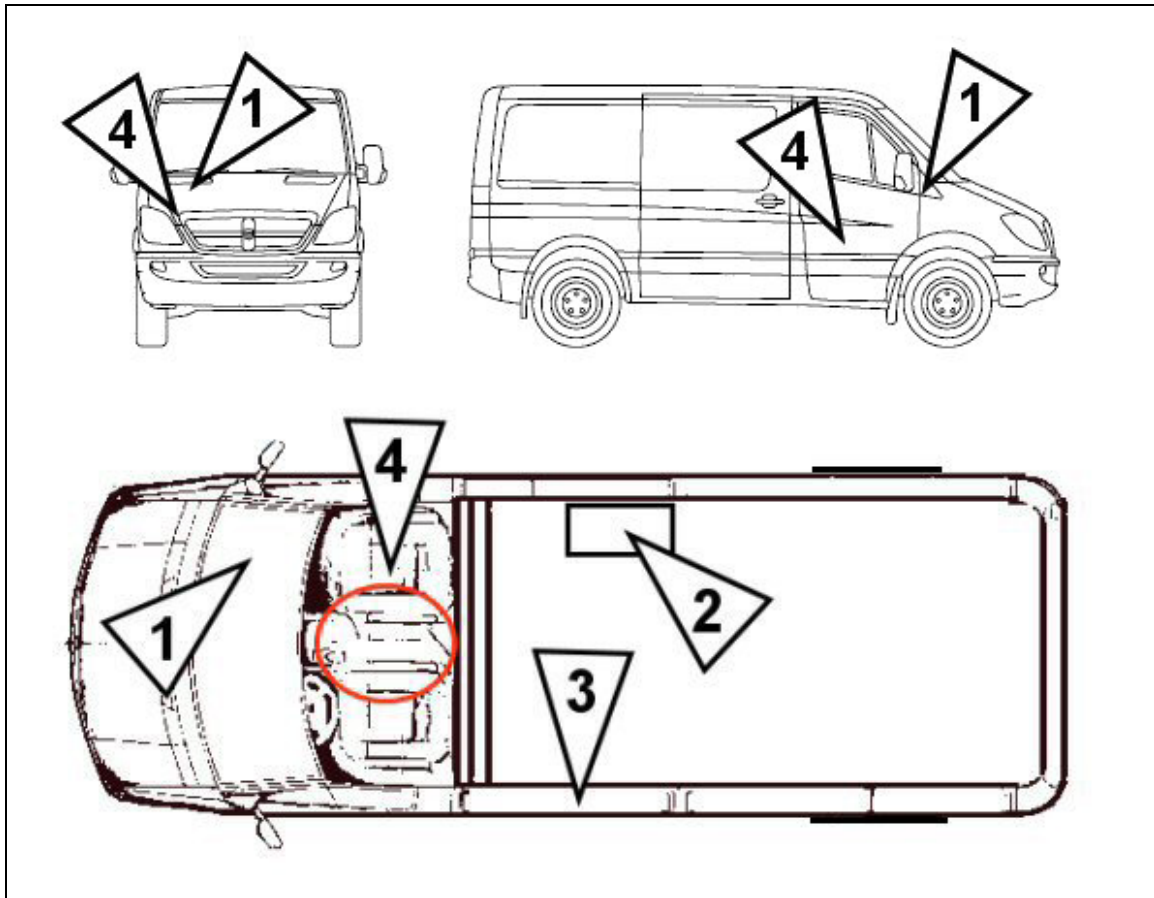
The wipe samples was collected by methodically wiping the entire surface of the selected area with moderate pressure; first in one direction and then in the opposite direction, folding the gauze to reveal fresh material as necessary. The sample was returned to its centrifuge tube and capped with a screw-cap.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

FACTs originally collected samples in a manner which, if site conditions permitted, would have allowed the vehicle to be declared compliant, and FACTs would have issued a “Decision Statement.” The issuance of the Decision Statement was predicated on finding levels of methamphetamine below the decision thresholds for the samples (concentrations below 0.5 µg/100cm<sup>2</sup> in the wipe samples).

The drawing below identifies the locations of the samples.



## Sample Locations



**Figure 1**  
**Sample Locations**

## Sample Results

The results of the samples are summarized in the table below:

Sample ID	Location	Result
CM032009-1	Dashboard of cab	0.15 $\mu\text{g}/100\text{cm}^2$
CM032009-2	Cargo bay floor-rail	ARCHIVED
CM032009-3	Tool box in cargo bay	ARCHIVED
CM032009-4	Passenger seat of cab	37.7 $\rho$ (1.5 $\mu\text{g}/100\text{cm}^2$ )
CM032009-5	Field Blank	ARCHIVED

**Table 2**  
**Results of Samples**

For all sampling and analytical methods, there is a specific uncertainty associated with the sampling and the analysis. Therefore, for any reported laboratory value, there is a probability that the true result is greater than the reported value (Upper Confidence Limit, UCL), or less than the reported value (Lower Confidence Limit, LCL). A laboratory



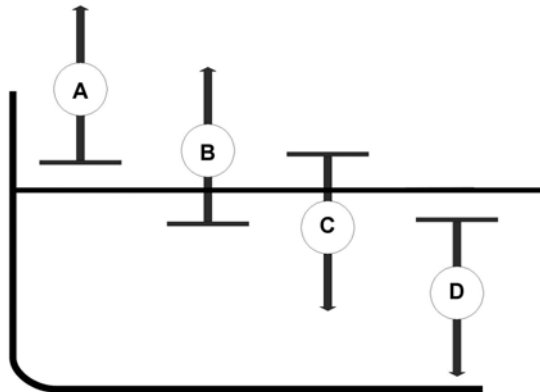
result, therefore, represents a *probable* result in between two limits and may be depicted thus:



The reported value (RV) lies somewhere in between two possible “true” values, the UCL and the LCL.

A determination of compliance is based not only on the reported value, but also on the statistical uncertainty of the results. So, in the drawing below, where the reported value (A) and the LCL are greater than the decision threshold (the horizontal line), we are *confident* the reported value indicates noncompliance. Where the reported value (D) and the UCL are less than the decision threshold, we are *confident* the reported value indicates compliance.

However, there is an ambiguous zone of reported values, such as (B), where although the reported value is greater than the decision threshold, there is a probability the true value is less than the decision threshold. Similarly, where the reported value is less than the decision threshold, there is a probability the true value is greater than the decision threshold (C).



**Figure 2**  
**Uncertainty in Reported Values**

Standard industrial hygiene sampling protocols require that the Industrial Hygienist consider this degree of uncertainty, known as the total coefficient of variation ( $C_{VT}$ ) for each method. The  $C_{VT}$  includes the uncertainty associated with both the sampling and analytical processes. For many methods, the degree of uncertainty is known and



published. However, for field methamphetamine sampling and analysis, the statistical uncertainty has yet to be fully characterized or published. However, when we analyze field data from other properties (n=747), we see a trend in sampling error in that sample variation, as a whole, exhibits a lognormal distribution. The sampling error (which speaks to the heterogeneous distribution of contamination at a subject property) is very large, and the geometric standard deviation is similarly large. Therefore, even for a sample result whose apparent result is below a specified quantity (such as Sample CM032009-1), there is a probability that the concentration of methamphetamine in the cab is in fact greater than compliance levels.

Standard Industrial Hygiene protocols typically use the 95% confidence intervals to determine the possible “spread” of the laboratory results about the true value. As such, where the  $Cv_T$  is known, the IH calculates the UCL and LCL and determines if the UCL is greater than or less than the Decision Threshold.

Although the reported numerical value of Sample Number CM032009-1, was less than the original Decision Threshold ( $0.5 \mu\text{g}/100\text{cm}^2$ ), based on the best available sampling error information, the error is such that the UCL may have been greater than the Decision Threshold.

If the vacuum sample had contained a methamphetamine density of less than the decision threshold ( $0.5 \rho$ ) we would have submitted the remaining two samples to determine compliance. However, the vacuum sample was more than 70 times the decision threshold. Therefore, since our role is to ensure that public health is protected, we believe that we are obligated to err on the side of the highest standard of care, and report that the sample result indicates a possible noncompliant condition. This interpretation is consistent with State regulations which state:<sup>12</sup>

*The protocol is not a substitute for professional judgment, but must be utilized by cognizant professionals in the application of their professional skills. Neither is the method a “cook-book” recipe that if followed, decontamination is guaranteed, and risks are assumed to be zero. The evaluation of any specific area must necessarily be based on the totality of the circumstances.*

Furthermore, the eventual evaluation of contamination of any area is, ultimately a process of professional judgment, as specified in Section 4.6 of the State regulations which state:

*This identification [of contaminated areas] 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;*

As such, our professional judgment is that there is sufficient evidence to conclude that unacceptable concentrations of methamphetamine contamination exist in the van.

The samples, taken in totality with all other information, indicate elevated methamphetamine contamination in the vehicle interior.

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<sup>12</sup> 6 CCR 1014-3, Attachment to Appendix A





## ***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 quality assurance/quality control (QA/QC) purposes, field blanks are randomly selected from the batch, and submitted to a qualified laboratory along with the actual samples, for analysis. To ensure the integrity of the blanks, FACTs personnel are unaware, until the actual time of sampling, which specific sample will be submitted as a blank. To ensure the integrity of the blanks, laboratory personnel are never informed which specific samples are blanks.

The history of the FACT's field blank media has demonstrated a media and handling contamination level below the analytical detection limit for the method. For the purposes of the data quality objectives associated with this preliminary assessment, no duplicates were required by regulation.

FACTs maintains a log of blank samples and materials, to ensure that reported methamphetamine is not due to our equipment contamination. Furthermore, the laboratory reports instrument and reagent blanks to ensure that reported methamphetamine is not due to reagent contamination. In this way, FACTs is confident that the reported methamphetamine is due exclusively to analyte recovered from the subject vehicle. More on our blanks is given in the QA/QC section.

## ***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.

## ***Laboratory 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.

### **March 20, 2009 Data Set**

MDL was 0.004 µg; LOQ was 0.03 µg; MBX <MDL; LCS 0.1 µg (RPD 4%, recovery =96%); Matrix spike 0.02 µg (RPD 9.5%; recovery 110%); Matrix spike Dup 0.02 µg (RPD 5%; recovery 95%); Surrogate recovery (all samples): High 113% (Sample 2), Low 107% (Sample 1); FACTs reagents: MeOH lot #A0801 <MDL for n=8; Gauze lot #G0901 <MDL for n=6. The QA/QC indicate the data met the data quality objectives; and the results do not appear to exhibit a significant net bias.

## ***Visual Inspection Of The Property***

As part of our Preliminary Assessment, on Friday March 20, 2009, FACTs performed a visual inspection of the subject property. The Industrial Hygienist, Mr. Connell, is a



State Certified VIN Inspector<sup>13</sup> who has received specialized training in vehicle searches associated with drug interdiction.<sup>14,15</sup> The subject property exclusively consisted of a 2005 white Dodge Sprinter van (VIN WD0PD644855776655).

Pursuant to regulatory requirements, the subject property was assigned into “functional spaces,” and an indicia inventory and assessment was performed for each functional space.

Upon our March 20, 2009 arrival, we found the property secured, and still containing various personal and commercial items.

In the drawing below, we have presented the general layout of the vehicle and surrounding features.



**Figure 3**  
**General Layout**

### ***Functional Space Summary***

During a Preliminary Assessment, the Industrial Hygienist divides an area into “functional spaces” and evaluates 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. In this case, given the small floor space of the van, there were essentially three functional spaces:

<sup>13</sup> State of Colorado Certificate Number 0952

<sup>14</sup> Rural Drug Interdiction (Multijurisdictional Counterdrug Taskforce Training, Florida National Guard/St. Petersburg College (Florida), Sept 2004, 24 Hours)

<sup>15</sup> Methamphetamine Investigation Management (Bureau of Justice Assistance, March 2006, 24 Hours)



- 1: The driver's cab
- 2: Cargo bay
- 3: Engine compartment

### **Functional Space 1: Driver's Cab**

According to law enforcement documents, controlled substances and drug paraphernalia were covered from this area. During our visual inspection, FACTs also identified other indicia including pornography.

Two discrete samples were collected from this functional space. These two samples, as described above give us sufficient confidence to determine that the van, as a whole, is in need of decontamination.

### **Identification of Cook/Storage Areas**

Based on the best information available, we believe that methamphetamine was not prepared on site, and that the occurrence of methamphetamine was restricted to use and storage. Due to the distribution of methamphetamine in the house, and the use of this space, we speculate that this room was the primary point of smoking.

### **Functional Space 2: Cargo Bay**

The cargo bay is physically separated from the driver's cab. The driver, whose clothing would have been contaminated, entered the cargo bay as part of his duties. Personal belongings were identified in the cargo bay. Ergo, there is sufficient evidence, based on professional judgment to conclude the cargo bay should be included in the remediation process.

### **Functional Space 3: Engine Compartment**

The engine compartment is physically isolated from the driver's cab. There is no reasonable contaminant transfer mechanism from the cab to the engine compartment. Nevertheless, we recommend that the engine compartment be hosed down as part of the decontamination process, prior to final sampling.

## **CONCLUSIONS**

Based on the totality of the circumstances, sampling, and a review of pertinent available Law Enforcement documents, our subjective observations and objective data from sampling, and in strict adherence to State statutes and State regulations, FACTs concludes the following:

- An illegal drug laboratory, as that term is defined in CRS §25-18.5-101, existed in the van, from at least March 13, 2009 forward, and continues to exist at the time of this report.
- A Class 1 Public Nuisance, as defined in CRS §16-13-303(1) existed at the subject property from March 13, 2009 forward, and continues to exist at the time of this report.



- “Discovery” and “Notification,” as those terms are used in CRS §25-18.5-103(1)(a) were issued on March 13, 2009, by Louisville Police personnel.
- The vehicle must be decontaminated pursuant to state regulations.
- Following decontamination, the decontamination must be verified through sampling as specified in State regulation.

## **RECOMMENDATIONS**

Based on our observations, and laboratory results, we recommend standard industry practices for decontamination to 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 (Boulder County Department of Health) has statutory authority to require a greater degree of decontamination of the vehicle.

### ***Universal Site Requirements***

1. If the vehicle is removed from the parking lot for off-site decontamination, the transport company shall not have access to the cab or interior of the vehicle, unless they have received training pursuant to 29 CFR 1910.120.
2. At the location where the vehicle is to be decontaminated, the vehicle shall be secured all times when not immediately manned by remediation personnel.
3. A licensed contractor, meeting State requirements, should be contracted for the decontamination work. All work performed at the vehicle 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 or PAPRs.
5. We recommend that a decontamination shower be established for the employees, at the location of decontamination, or that the contractor arrange with Coinstar for the use of employee showers (if they exist at the facility).
6. All remediation work performed on the vehicle should be conducted under written contract with a reputable remediation company qualified to perform the work.
7. All work performed on the vehicle should be conducted with open communication and cooperation with the City of Louisville Police Department and the Boulder County Department of Health.



8. The discovery of any controlled substances or hidden compartments shall be immediately reported to the Louisville Police Department.
9. All remediation work should be presumed to be pursuant to Title 29 of the Code of Federal Regulations, §1910.120 until otherwise indicated.
10. The contractor *should* be contractually obligated to perform at least one full shift personnel air monitoring sample and 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 vehicle 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 industrial hygiene costs of return visits and sample expenses as a result of a failed final clearance(s).
13. State regulations prohibit painting or otherwise encapsulating surfaces prior to final clearance sampling by the Industrial Hygienist.
14. Following the decontamination process, and prior to the final clearance sampling by the Industrial Hygienist, the remediation contractor/subcontractor shall be contractually obligated to collect a minimum of three QA/QC wipe samples from the vehicle interior, as part of their own QA program, and submit those samples for methamphetamine analysis. The contractor shall 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.
15. If the contractor's three QA/QC samples suggest that contamination in the subject property remains at a concentration in excess of  $0.25 \mu\text{g}/100 \text{ cm}^2$ , the contractor shall be contractually obligated to continue to clean, and sample, until the elevated concentrations are not observed.
16. Once the contractor's samples indicate the contamination has been sufficiently reduced, the Industrial Hygienist shall perform final clearance sampling according to 6-CCR 1014-3.



## ***Decontamination of The Vehicle***

The vehicle should be decontaminated out of doors. At no time should the vehicle be brought into an enclosed area. If the vehicle is taken into an enclosed area prior to the issuance of a Decision Statement, those additional areas shall also be subject to final clearance sampling.

The decontamination process should take place in the following order:

1. Vehicles immediately to the sides of the subject vehicle shall be relocated such that the immediately adjacent parking spaces are empty.
2. Water wash the engine compartment.
3. Establish negative pressure pursuant to State regulations.
4. Exhaust from the negative enclosure may take place at any location.
5. No other work, except as needed to establish critical barriers shall begin until negative pressure is established.
6. If the vehicle is in an indoor enclosure, negative pressure must 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 engine shall be started and permitted to operate for no fewer than 20 minutes.
8. After the engine has operated for 20 minutes, an HEPA filtered vacuum shall be applied to the heating vents, and the vehicle's heating system shall be activated, with the blower fan on high and the temperature control set to the maximum temperature setting. The heating system shall be operated thus for five minutes.
9. Then, an HEPA filtered vacuum shall be applied to the air-conditioning vents, and the vehicle's air-conditioning system shall be activated, with the blower fan on high and the temperature control set to coldest maximum temperature setting. The air-conditioning system shall be operated thus for five minutes.
10. Each of the vents shall then be sealed with a critical barrier of suitable polyethylene sheeting anchored into place with an adhesive and/or duct tape as appropriate.
11. The contractor shall consult with a Coinstar representative who will be on-site to determine if any documents or other property inside the vehicle are sufficiently important to be salvaged. All personal items not salvaged shall be discarded.



12. All salvaged items scheduled for decontamination shall be relocated to the cargo bay.
13. The contractor shall begin the decontamination process by decontaminating the cargo bay first. The decontamination of the cargo bay shall include all items scheduled for salvage.
14. Carpeting, seating and all other fabric materials shall be thoroughly vacuumed with an HEPA filtered vacuum cleaner. After vacuuming, all fabric materials including the carpet and seats should be shampooed. The carpet and other fabric surfaces will be subjected to final clearance sampling in accordance with standard industrial hygiene microvacuum sampling procedures.<sup>16</sup>
  - a. If the methamphetamine density in the carpet or seating exceeds 0.5 ρ, FACTs will make the unqualified statement that in the absence of conflicting information, the material requires further decontamination. The value of “0.5” in this case, has no association with the State mandated decision threshold of 0.5 µg/100cm<sup>2</sup> – the resemblance of the two values is purely coincidental.
15. All surfaces in the vehicle including the interior roof, sunshades, seats, floors, doors, hinges, and every interior surface whether specifically mentioned or not, shall be thoroughly wiped down to remove residual contamination.

Enclosures: One CD; Data package, and Appendices

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<sup>16</sup> For example, see ASTM Method D 5756-02



## **APPENDIX A:**

### **SUPPORTING DOCUMENTS**





**FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.  
CLANDESTINE METHAMPHETAMINE LABORATORY  
ASSESSMENT FIELD FORMS<sup>©</sup>**

<b>FACTs project name: Taylor Ave Van</b>	<b>Form # ML1</b>
<b>Date: April 1, 2009</b>	
<b>Reporting IH:</b>	<b>Caoimhin P. Connell, Forensic IH</b>

**PROPERTY DESCRIPTION:**

Physical address	<b>397 South Taylor Ave, Louisville, CO</b>		
Legal description or VIN	<b>WD0PD644855776655 (Title No. 07P454704)</b>		
Registered Property Owner <sup>1</sup>	<b>DL Peterson Trust 940 Ridgebrook Rd, Sparks, MD 21152-9390 c/o American Merchandising Inc. 3881 E 99<sup>th</sup> Lane, Thornton, CO 80229</b>		
Number of structures	<b>One</b>		
Type of Structures (Each affected structure will need a "Functional Space" inventory)	1: Dodge Sprinter van	133	Square feet
	2: NA		Square feet
	3: NA		Square feet
	4: NA		Square feet
	5: NA		Square feet
	Total:	133	Square feet
Adjacent and/or surrounding properties	1:North - Blue Chev PK (Colo. TRK 642-GCZ)		
	2: South – Grey van (photo missing)		
	3: East – Sugarloaf Inc. commercial structure		
	4: West – Grassy knoll and commercial structure		
General Property Observations	<b>Excellent condition</b>		
Presumed Production Method	<b>Use and storage</b>		

**Notes:**

**1- Taken from Colorado registration document dated 06/07/2006, and Colorado Insurance ID card dated 09/01/2006 supplied to FACTs by Coinstar, Inc. (397 South Taylor Ave, Louisville, CO)**

**PLUMBING INSPECTION AND INVENTORY**

<b>FACTs project name: Taylor Ave Van</b>	<b>Form # ML2</b>
<b>Date:</b>	
<b>Reporting IH:</b>	<b>Caoimhin P. Connell, Forensic IH</b>

Functional Space	Room	Fixture	Indicia?	Comments
	Bathroom # 1	Bath		<b>Not applicable for this property</b>
	Bathroom # 1	Shower		
	Bathroom # 1	Sink		
	Bathroom # 1	Toilet		
	Bathroom # 2	Bath		
	Bathroom # 2	Shower		
	Bathroom # 2	Sink		
	Bathroom # 2	Toilet		
	Kitchen	Sink		
		Slop sink		
		Washing machine		
		Dishwasher		

**VENTILATION INSPECTION AND INVENTORY**

Item	Y/N	Comments
Isolated AHU?	Y	See body of report
Common air intake?	N	
Common bathroom exhausts?	NA	
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?	Y	
Residential ventilation?	N	
Pressurized structure?	N	



**FUNCTIONAL SPACE INVENTORY**

<b>FACTs project name: Taylor Ave Van</b>	<b>Form # ML3</b>
<b>Date: April 1, 2009</b>	
<b>Reporting IH:</b>	<b>Caoimhin P. Connell, Forensic IH</b>

<b>Structure Number</b>	<b>Functional Space Number</b>	<b>Indicia (Y/N)</b>	<b>Describe the functional space (See drawings for delineating structural features )</b>
<b>1</b>	<b>1</b>	<b>Y</b>	<b>Driver's cab inclusive</b>
<b>1</b>	<b>2</b>	<b>Y</b>	<b>Cargo bay inclusive</b>
<b>1</b>	<b>3</b>	<b>N</b>	<b>Engine compartment</b>





**FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.**

March 20, 2009

Louisville Police Department  
Records Division  
992 West Via Appia  
Louisville, Colorado

Via Fax: 303-335-4683

To Whom It May Concern:

Forensic Applications, Inc. has been contracted to perform a "Preliminary Assessment" at a property meeting the definition of 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 a van located in the City of Louisville, at:

**397 S. Taylor Ave, Louisville, CO 80027**

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 the records offices and review available information there.

We would like to review any narratives regarding controlled substances at the property, and in particular, we would like to review the narrative associated with Case Number 09397 (Officer Gordanier). We would also like to arrange a very brief telephone interview with Off. Gordanier, which typically should last fewer than five minutes. If no such records are available please let us know and we will merely make that notation in our report to the Governing Body (Boulder County Department of Health).

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 any information considered sensitive by an investigating agency. We have developed a close working relationship with Law Enforcement personnel across the State, and we value and respect that open line of communication. I have included my SOQ.

I affirm that upon receipt of requested records of official actions and/or criminal justice records from the Louisville Police Department, such records shall not be used for the direct solicitation of business for pecuniary gain, pursuant to CRS §24-72-305.5

Sincerely,

Caoimhín P. Connell  
Forensic Industrial Hygienist



**FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.  
CONSULTANT STATEMENT OF QUALIFICATIONS**

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

<b>FACTs project name:</b>	<b>Taylor Ave</b>	<b>Form # ML15</b>
<b>Date:</b>	<b>March 20, 2009</b>	
<b>Reporting IH:</b>	<b>Caoimhín P. Connell, Forensic IH</b>	

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 over 200 hours of methlab training for officers of over 25 Colorado Police agencies, 20 Sheriff's Offices, federal agents, and probation and parole officers from the 2<sup>nd</sup>, 7<sup>th</sup> and 9<sup>th</sup> 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 110 assessments in illegal drug labs, and collected over 1,200 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.

**LAW ENFORCEMENT DOCUMENTATION**

<b>FACTs project name: Taylor Ave Van</b>	<b>Form # ML4</b>
<b>Date: April 1, 2009</b>	
<b>Reporting IH:</b>	<b>Caoimhin P. Connell, Forensic IH</b>

Inventory of Reviewed Documents	1: LPD Arrest Report 09397.1 (3/17/09) 2: LPD Arrest Report 09397.2 (3/17/09)
Described method(s) of production	Storage, smoking.
Chemicals identified by the LEA as being present	Methamphetamine (presumptive positive) Marijuana (presumptive positive)
Cooking areas identified	NONE
Chemical storage areas identified	Driver's cab
LE Observation on areas of contamination or waste disposal	Methamphetamine (presumptive positive) Marijuana (presumptive positive) Black similac thermal bag Ronson butane torch Blue Pen torch Purple Bic lighter Clear glass pipe (paraphernalia) Damaged glass pipe (paraphernalia) Medium glass pipe #1 (paraphernalia) Medium glass pipe #2 (paraphernalia) Clear tube w/stopper (paraphernalia) Bent wire (paraphernalia) Seven small baggies



## FIELD OBSERVATIONS

<b>FACTs project name: Taylor Ave Van</b>	<b>Form # ML5</b>
<b>Date: April 1, 2009</b>	
<b>Reporting IH:</b>	<b>Caoimhin P. Connell, Forensic IH</b>

Indicator	Functional Space	Indicator	Functional Space
Acids	3①	Heet or similar (MeOH)	NA
Aerosol cans	1①	Hydrogen peroxide	NA
Alcohols (MeOH, EtOH)	1①	Iodine	NA
Ammonia	NA	Kitty litter	NA
Ammunition	NA	Lead	NA
Artistic expressions	NA	Lithium	NA
Bags of salt	NA	Match components	NA
Bases	NA	Mercury	NA
Basters/Pipettes	NA	Methamphetamine	1
Batteries	3①	Modified coolers	NA
Bi-phasic wastes	NA	Needles/Syringes	NA
Booby traps (trips, triggers, etc)	NA	Other OTC	NA
Bullet holes	NA	pH papers/indicators	NA
Burn marks	NA	Phenyl-2-propanone	NA
Chemical storage	1,2	Pornography, Sex toys	1
Colored wastes	NA	Presence of cats	NA
Corrosion on surfaces	NA	Pseudoephedrine	NA
Drug paraphernalia	1	Red P	NA
Empty OTC Containers	NA	Smoke detectors disabled	NA
Ephedrine	NA	Solvents - ketones, etc	1①
Faeces	NA	Solvents -aromatics	1①
Filters	NA	Squalor	NA
Forced entry marks	NA	Staining on floors	NA
Gas cylinders	NA	Structural damage/modifications	NA
Gerry cans	NA	Urine containers	NA
Glassware	1	Weapons	NA
Heating mantle/heat source	1	Yellow staining	NA

### Notes

- 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







**INDIVIDUAL SEWAGE DISPOSAL SYSTEM FIELD FORM**

<b>FACTs project name: Taylor Ave Van</b>	<b>Form # ML7</b>
<b>Date: April 1, 2009</b>	
<b>Reporting IH:</b>	<b>Caoimhin P. Connell, Forensic IH</b>

	Yes	No	NA
Does the property have an ISDS		X	
Is there unusual staining around internal drains			X
Are solvent odors present from the 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 (pH =7 to 8)			X
Were organic vapours measured in the septic tank (if "yes" see below)			X
Is there evidence of wastes being disposed down internal drains			X
Is sampling of the ISDS warranted			X
Were calawasi/drum thief samples collected from the septic tank			X

\*NC = Not checked

**Qualitative Organic Vapor Monitoring**

Hydrocarbon detector model	EnMet Target Series, MOS detector
NA	NA

Location	MOS*	PID*	FID*
NA	NA	NA	NA













\*Units of measurement are in parts per million equivalents compared to the calibration vapor.



## PRE-REMEDATION PHOTOGRAPH LOG SHEET

<b>FACTs project name: Taylor Ave Van</b>	<b>Form # ML8</b>
<b>Date: April 1, 2009</b>	
<b>Reporting IH:</b>	<b>Caoimhin P. Connell, Forensic IH</b>

Following the visit, a folder of approximately 24 photos was accidentally deleted or misplaced. If the missing photos are recovered at a later date, those photos will be submitted to all recipients.

Name ^	Date taken
 Cargo Bay	3/20/2009 10:50
 Cargo Bay (2)	3/20/2009 10:50
 Cargo Bay (3)	3/20/2009 10:50
 General view	3/20/2009 10:49
 General view (2)	3/20/2009 10:49
 General view (3)	3/20/2009 10:50
 Sample 1 location	3/20/2009 11:36
 Sample 2 location	3/20/2009 11:36
 Sample 3 location	3/20/2009 11:36
 Sample 4 location	3/20/2009 11:36
 VIN	3/20/2009 10:49
 VIN (2)	3/20/2009 10:49



**DRAWING OF COOK AREA(S)**

<b>FACTs project name: Taylor Ave Van</b>	<b>Form # ML10</b>
<b>Date: April 1, 2009</b>	
<b>Reporting IH:</b>	<b>Caoimhin P. Connell, Forensic IH</b>

Not applicable																																							

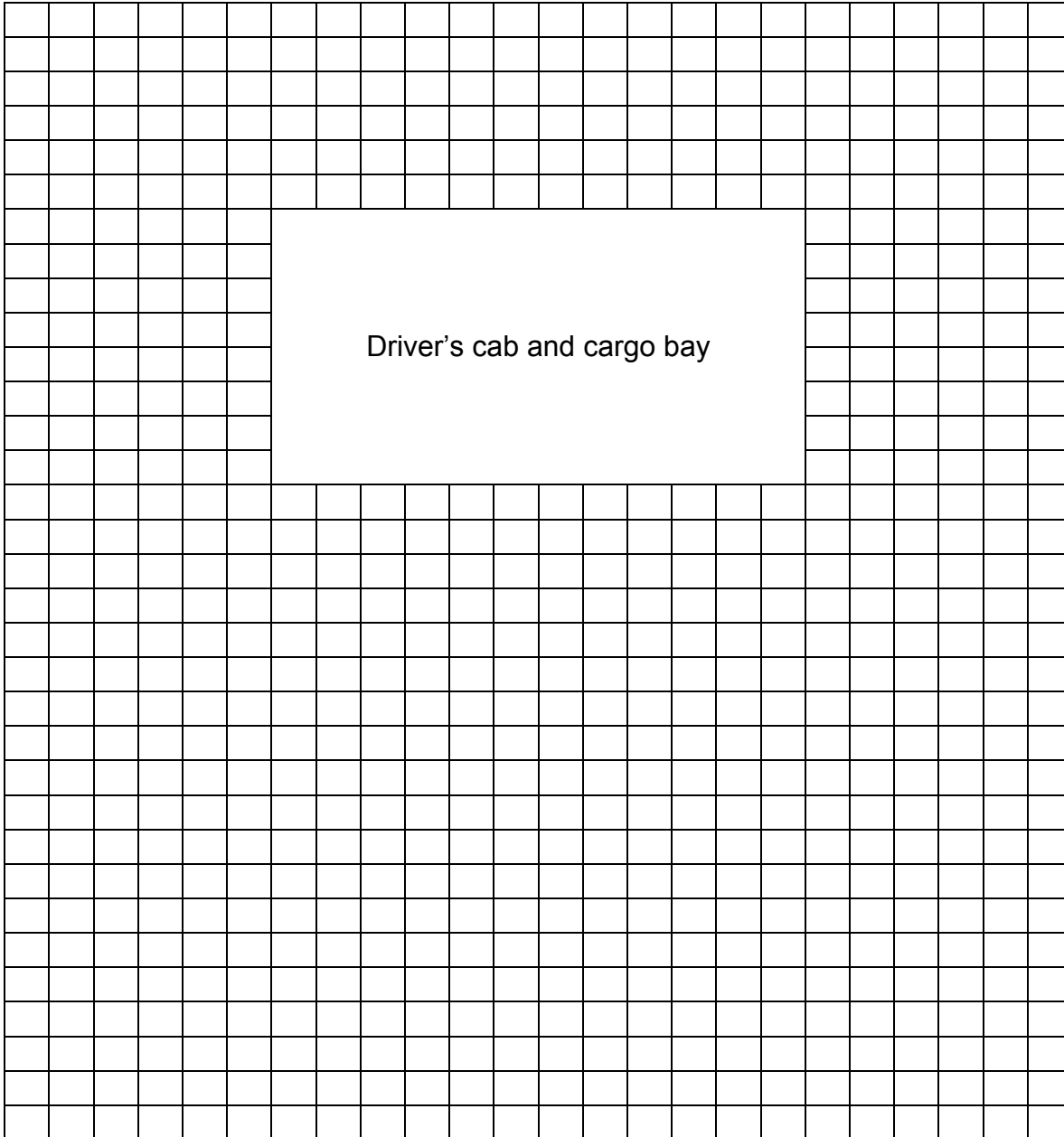
Each grid equals approximately \_\_\_\_\_ (Approximate lay-out; Not to scale)

Describe the area: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**DRAWING OF STORAGE/DISPOSAL AREA(S)**

<b>FACTs project name: Taylor Ave Van</b>	<b>Form # ML11</b>
<b>Date: April 1, 2009</b>	
<b>Reporting IH:</b>	<b>Caoimhin P. Connell, Forensic IH</b>



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

Describe the area: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**DRAWING OF GENERAL LAB AREA**

<b>FACTs project name: Taylor Ave Van</b>	<b>Form # ML12</b>
<b>Date: April 1, 2009</b>	
<b>Reporting IH:</b>	<b>Caoimhin P. Connell, Forensic IH</b>

See body of report																																							

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

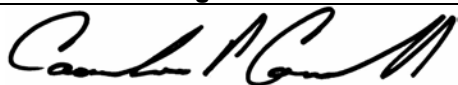
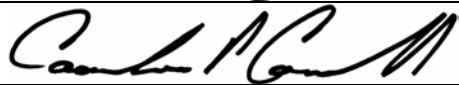
Describe the area: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**CERTIFICATION, VARIATIONS AND SIGNATURE SHEET**

<b>FACTs project name: Taylor Ave Van</b>	<b>Form # ML14</b>
<b>Date: April 1, 2009</b>	
<b>Reporting IH:</b>	<b>Caoimhín P. Connell, Forensic IH</b>

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.

There were no deviations from State statutes or State regulations.

**Pursuant to the language required in 6 CCR 1014-3, § 8:**

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: April 1, 2009





## FORENSIC APPLICATIONS CONSULTING TECHNOLOGIES, INC.

### CONSULTANT STATEMENT OF QUALIFICATIONS

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

<b>FACTs project name:</b>	<b>Taylor Ave</b>	<b>Form # ML15</b>
<b>Date:</b>	<b>April 1, 2009</b>	
<b>Reporting IH:</b>	<b>Caoimhín P. Connell, Forensic IH</b>	

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 over 200 hours of methlab training for officers of over 25 Colorado Police agencies, 20 Sheriff's Offices, federal agents, and probation and parole officers from the 2<sup>nd</sup>, 7<sup>th</sup> and 9<sup>th</sup> 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 112 assessments in illegal drug labs, and collected over 1,200 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.

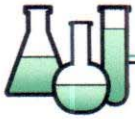
Mr. Connell, who is a committee member of the ASTM International Forensic Sciences Committee, was the sole sponsor of the draft ASTM E50 *Standard Practice for the Assessment of Contamination at Suspected Clandestine Drug Laboratories*, and he is an author of a recent (2007) AIHA Publication on methlab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

## **APPENDIX B**

### **ANALYTICAL REPORTS FOR FACTS SAMPLES**







# ANALYTICAL CHEMISTRY INC.

Established in 1979

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

Website: [www.acilabs.com](http://www.acilabs.com)

Phone: 206-622-8353  
E-mail: [info@acilabs.com](mailto:info@acilabs.com)

<b>Lab Reference:</b>	09119-10
<b>Date Received:</b>	March 25, 2006
<b>Date Completed:</b>	March 27, 2009

March 27, 2009

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

**CLIENT REF:** Coinstar

**SAMPLES:** wipes/1, filter (vacuum)/1

**ANALYSIS:** Methamphetamine by Gas Chromatography-Mass Spectrometry.

**RESULTS:** in total micrograms (ug)

<b>Sample</b>	<b>Methamphetamine, ug</b>	<b>% Surrogate Recovery</b>
CM032009 - 01	0.570	107
CM032009 - 04 (7 milligrams)	6.41	113
QA/QC Method Blank	< 0.004	
QC 0.100 ug Standard	0.096	
QA 0.020 ug Matrix Spike	0.022	
QA 0.020 ug Matrix Spike Duplicate	0.019	
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.acilabs.com

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

Page 1 of 1

Please do not write in shaded areas.

<b>SAMPLING DATE:</b>	3-20-09		<b>REPORT TO:</b>	Caoimhin P. Connell						<b>ANALYSIS REQUESTED</b>				
<b>PROJECT Name/No:</b>	COINSTAR		<b>COMPANY:</b>	Forensic Applications, Inc.						1 Methamphetamine				
<b>eMail:</b>	Fiosrach@aol.com		<b>ADDRESS:</b>	185 Bounty Hunters Lane, Bailey, CO 80421						2 Use entire contents				
<b>SAMPLER NAME:</b>	Caoimhin P. Connell		<b>PHONE</b>	303-903-7494						3 GRAVIMETRICS				
<b>LAB Number</b>	<b>Sample Number</b>	<b>SAMPLE MATRIX</b>			<b>ANALYSIS REQUESTS</b>						<b>SAMPLER COMMENTS</b>	<b>LAB COMMENTS</b>	<b>No of Containers</b>	
		Wipe	Vacuum	Other	1	2	3	4	5	6				
	CM032009-01	X			X	X								1
	CM032009-04		X		X	X							REPORT NET WT IN MG	1
<b>CHAIN OF CUSTODY RECORD</b>			<b>Wipes Results in:</b>			<b>Turnaround Time</b>			<b>Total Number of Containers (verified by laboratory)</b>					
<b>PRINT NAME</b>	<b>Signature</b>	<b>COMPANY</b>	<b>DATE</b>	<b>TIME</b>	<input type="checkbox"/> µg/100cm <sup>2</sup>	<input checked="" type="checkbox"/> Total µg	<b>Custody Seals:</b>	<b>Container:</b>	<b>Temperature:</b>	<b>Inspected By:</b>	<b>Lab File No.</b>	<b>Yes</b>	<b>No</b>	
Caoimhin P. Connell		FACTS, Inc.	3/23/09	11:30 AM			<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Intact	<input checked="" type="checkbox"/> Ambient	MIA SAZON	09119-10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
MIA SAZON		ACI	3/25/09	1400			<input type="checkbox"/>	<input type="checkbox"/> 24 Hours (2X)	<input type="checkbox"/> 2 Days (1.75X)			<input type="checkbox"/>	<input type="checkbox"/>	
							<input type="checkbox"/>	<input type="checkbox"/> 3 Days (1.5X)	<input checked="" type="checkbox"/> Routine					



**APPENDIX C**  
**COMPACT DIGITAL DISC (CD)**

