

DATE SUBMITTED 12/27/2023
 SUBMITTED BY Imperial Police Dept.
 DATE ACTION REQUIRED 01/03/2024

COUNCIL ACTION (X)
 PUBLIC HEARING REQUIRED ()
 RESOLUTION ()
 ORDINANCE 1ST READING ()
 ORDINANCE 2ND READING ()
 CITY CLERK'S INITIALS ()

**IMPERIAL CITY COUNCIL
 AGENDA ITEM**

SUBJECT: DISCUSSION/ ACTION;

- ADDRESS A DEPARTMENT NEED AND CREATE BETTER OFFICER SAFETY BY REPLACING OUR OUTDATED FIELD NARCOTIC PRESUMPTIVE TESTING.
- APPROVAL OF PURCHASE OF IN-FIELD NARCOTICS ANALYZER

DEPARTMENT INVOLVED: POLICE DEPARTMENT

BACKGROUND/SUMMARY:

As our officers are conducting their daily job functions, the threat to their safety is at an all-time high with the potential for exposure to Fentanyl and other drugs. Due to the risk associated with ambient exposure, a directive was given to staff to cease all, "In-field" presumptive testing prior to booking the substances into Evidence.

Unfortunately, California Department of Justice typically has a back log for the scientific testing of substances and most of the time, we do not receive the lab results back, prior to the court proceedings. This allows for the defense to question the validity of the arrest and could cause the Magistrate to rule against the crime charged.

Upon conducting research to mitigate the issue, the department reached out to the Imperial County Sheriff's Office and found an updated solution. ICSO currently uses the TruNarc Handheld Narcotics Analyzer to conduct and obtain their presumptive test results for illegal substances. This reduces up to 95% + of the threat of exposure to Police Officers and allows for officers to gather the information needed to successfully prosecute criminals in possession of such deadly substances.

The TruNarc Handheld Narcotics Analyzer has a library of over 500 different substances and provides almost immediate results without direct contact to the substance itself. The company that offers this device, Thermo Scientific, is a trusted company that has been manufacturing, maintaining, and training on this product since 2012. Additionally, Thermo Scientific offers Law Enforcement agencies GSA Cooperative Program pricing, allowing us to purchase direct from the vendor. (Attached) quote for the product, warranty information, and several documents explaining the product in great detail.

The Police Department recommends the purchase of (1) one TruNarc Handheld Narcotic Analyzer T-12 with a 5-year warranty and (1) one (100pk solution kit). Not only will this tool create a safer environment for our employees, it also in lines itself with FY 23/24 council recommended City projects (New technology for the police department).

GSA Contract # GS-07F-6099R
 Total cost - Not to Exceed \$38,400.00

Jeremy Schaffer

From: Ferrera, Geno <geno.ferrera@thermofisher.com>
Sent: Tuesday, September 26, 2023 1:01 PM
To: Jeremy Schaffer
Subject: TruNarc
Attachments: TruNarc 1.10 Product Brochure.pdf; TruNarc 1.10 Library.pdf; TN Scan Reports.pdf; TruNarc Type H_19.pdf; TruNarc Benefits Sheet.pdf

CAUTION: This email originated from outside the City of Imperial. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Officer Schaffer,

Good Afternoon, I have received your request for information on the TruNarc and I have included some pricing and PDF's in the information below and once you have decided on which warranty option you would like I will put together a quote for you. Please feel free to contact me at any time to discuss this further.

Thank you for your interest in narcotics Identification TruNarc (www.thermoscientific.com/trunarc) here is the current pricing with and without training and HKit info. "This is NOT a Quote" Some PDF's that should be helpful with the 1.10 library of the substances it can find. TruNarc can identify controlled substances, precursors and cutting agents. It also can identify emerging threats such as fentanyl (50 variants, including Carfentanil, in the 1.10 version) and bath salts. TruNarc utilizes non-contact, non-destructive sampling for most samples. The user can scan directly through plastic bags or glass containers to minimize contamination, reduce exposure and preserve evidence. This increases officer safety in the field and reduces potential contamination of the evidence. I have also included our updated chemical library 1.10 that has included testing for Xylazine (Tranq) and additional Fentanyl analogs as well as 8 Nitazene analogs.

Please give me a call we can discuss all the options available and what model works best for your budget and if you need the H-Kit extraction for Heroin and other low dose substance testing then I can prepare a quote. Here are the pricing options for TruNarc. The Type H Kit is used to identify Heroin, Heroin/Fentanyl mixtures, low concentration fentanyl, **Synthetic Marijuana (K2/Spice) in finished form** and some low dose pills (see library and Type H tech note to follow). Onsite training is strongly recommended for a successful implementation. The admin software is included with the TruNarc purchase and there are no license fee so it can be downloaded on multiple devices. Also click on our GSA link for contract pricing that offers our best discounted pricing. Any questions on GSA let me know.

Also, State & Local agencies now have the option to purchase using the GSA Cooperative Program so I have also included the GSA pricing if you would like to purchase using this contract vehicle.

GSA Contract No. GS-07F-6099R
Contract period: March 26, 2010 - September 28, 2025
SIN 334519
SIN 339999E

When placing a purchase order against this quote, please use the Mandatory PO language for state/local orders using the Cooperative Purchasing Program as follows: "This order is placed under GSA contract number GS-07F-6099R under the authority of the GSA Cooperative Purchasing Program. In the event of a conflict between the terms of this order and those of the GSA Schedule, GSA's terms shall govern."

https://www.gsaadvantage.gov/ref_text/GS07F6099R/OXYKN7.3TOXHY_GS-07F-6099R_THERMOPS125.PDF

TruNarc Unlimited				
Part #	Product	Description	2023 Pricing (as of 9/1/22)	2023 GSA Pricing (as of 2/14/23)
800-01041-01	TruNarc, Unlimited, Warranty - 1 Yr, Train-12	TruNarc Unlimited Model with 1 year of warranty. Includes factory repair, loaner units when available and 24/7 technical support. Companion PC TruNarc admin software, unlimited access to TruNarc eLearning course and free basic software updates to core narcotics library are provided for the life of the instrument. Includes TruNarc on-site instructor led training for up to 12 students within the Continental United States (CONUS) - expires 9 months after date of purchase.	\$31,000.00	\$29,047.86
800-01042-01	TruNarc, Unlimited, Warranty - 2 Yrs, Train-12	As above with 2 years of warranty.	\$32,200.00	\$30,172.29
800-01043-01	TruNarc, Unlimited, Warranty - 3 Yrs, Train-12	As above with 3 years of warranty.	\$34,900.00	\$32,702.27
800-01044-01	TruNarc, Unlimited, Warranty - 4 Yrs, Train-12	As above with 4 years of warranty.	\$36,200.00	\$33,920.40
800-01045-01	TruNarc, Unlimited, Warranty - 5 Yrs, Train-12	As above with 5 years of warranty.	\$38,500.00	\$36,075.57
810-01462-01	TruNarc Solution Kit (Type H) - 100, English	TruNarc Solution Kit (Type H) for identification of Heroin and other special narcotics. Kit includes 100 Test Sticks and 100 Solution Vials with Ethanol. Note that because of the Ethanol, this product ships as a Hazardous Goods shipment.	\$704.00	\$704.00
810-01461-01	TruNarc Solution Kit (Type H) - 20, English	TruNarc Solution Kit (Type H) for identification of Heroin and other special narcotics. Kit includes 20 Test Sticks and 20 Solution Vials with Ethanol. Note that because of the Ethanol, this product ships as a Hazardous Goods shipment.	\$146.00	\$146.00
800-01011-01	TruNarc, Unlimited, Warranty - 1 Yr	TruNarc Unlimited Model with 1 year of warranty. Includes factory repair, loaner units when available and 24/7 technical support. Companion PC TruNarc admin software, unlimited access to TruNarc eLearning course and free basic software updates to core narcotics library are provided for the life of the instrument.	\$27,500.00 \$25,768.26 GSA	
800-01012-01	TruNarc, Unlimited, Warranty - 2 Yrs	As above with 2 years of warranty.	\$29,900.00 \$28,017.13 GSA	
800-01013-01	TruNarc, Unlimited, Warranty - 3 Yrs	As above with 3 years of warranty.	\$32,100.00 \$30,078.59 GSA	
800-01014-01	TruNarc, Unlimited, Warranty - 4 Yrs	As above with 4 years of warranty.	\$33,200.00 \$31,109.32 GSA	
800-01015-01	TruNarc, Unlimited, Warranty - 5 Yrs	As above with 5 years of warranty.	\$35,300.00	

thermoscientific



Thermo Scientific TruNarc Handheld Narcotics Analyzer

Field-based presumptive narcotics, precursor and cutting agent testing

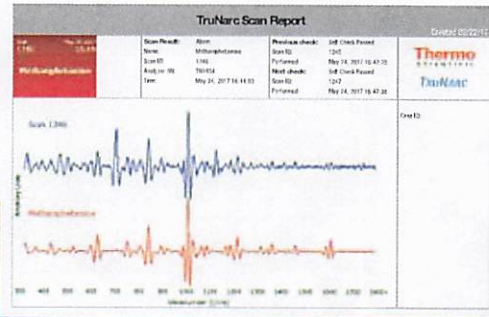


ThermoFisher
SCIENTIFIC

The TruNarc Handheld Narcotics Analyzer

- Tests for almost 500 substances, including narcotics, stimulants, depressants, hallucinogens and analgesics
- Library regularly updated to include emerging drug threats
- Requires no direct contact with most substances
- Delivers clear, real-time results for presumptive evidence
- Provides automated, tamper-proof records with scan results, including time-and-date stamps to help expedite prosecution

limits direct contact



Helping law enforcement

10
REASONS

Handheld Raman for Narcotics ID Strengthens Law Enforcement

A well-established technique for identifying chemicals, Raman spectroscopy has been used in forensic laboratory analysis for decades. It is widely accepted by the scientific community and has a proven track record in the United States court system.

1



Point and Shoot Simplicity

A handheld Raman analyzer can ID hundreds of narcotics, precursors or cutting agents in seconds-right at the scene. With high specificity, the analyzer is non-destructive, non-contact and easy to use.

2



Court-admissible Results

Handheld Raman analysis is allowed in early court proceedings. Law enforcement gains probable cause and the ability to charge suspects while rapidly moving cases through the system.

3



Faster Turnaround

With backlogs at the crime lab, the time between arrest and early court proceedings can reach one year in some cases. With admission of handheld Raman analysis, cases can be prepared for court in a matter of weeks.

4



Complete Police Reports

A handheld analyzer automatically generates a tamper-proof report, with test location, time, result and operator, for inclusion in the investigative file delivered to the prosecuting attorney's office.

5



Reduced Backlogs at the Crime Lab

In jurisdictions that permit handheld Raman analysis, crime labs may enjoy more efficient operation because each field test becomes a screening test, preventing backlogs.

6



Lower Costs

Given the cost per sample at the crime lab, drug testing can run tens of thousands of dollars per month. By deploying a handheld Raman analyzer, law enforcement can realize substantial savings over the life of the instrument.

7



Early Warning Sign

Handheld Raman analysis helps discover novel synthetic compounds. When these new substances are understood at the lab level, the information is quickly passed back to the analyzer for positive field ID.

8



Fast Library Updates

As new drug threats emerge, new substances can be added to an analyzer's "fingerprint" library quickly. These updates are made available frequently and are typically free of charge.

9



Beyond Wet Chemistry Kits

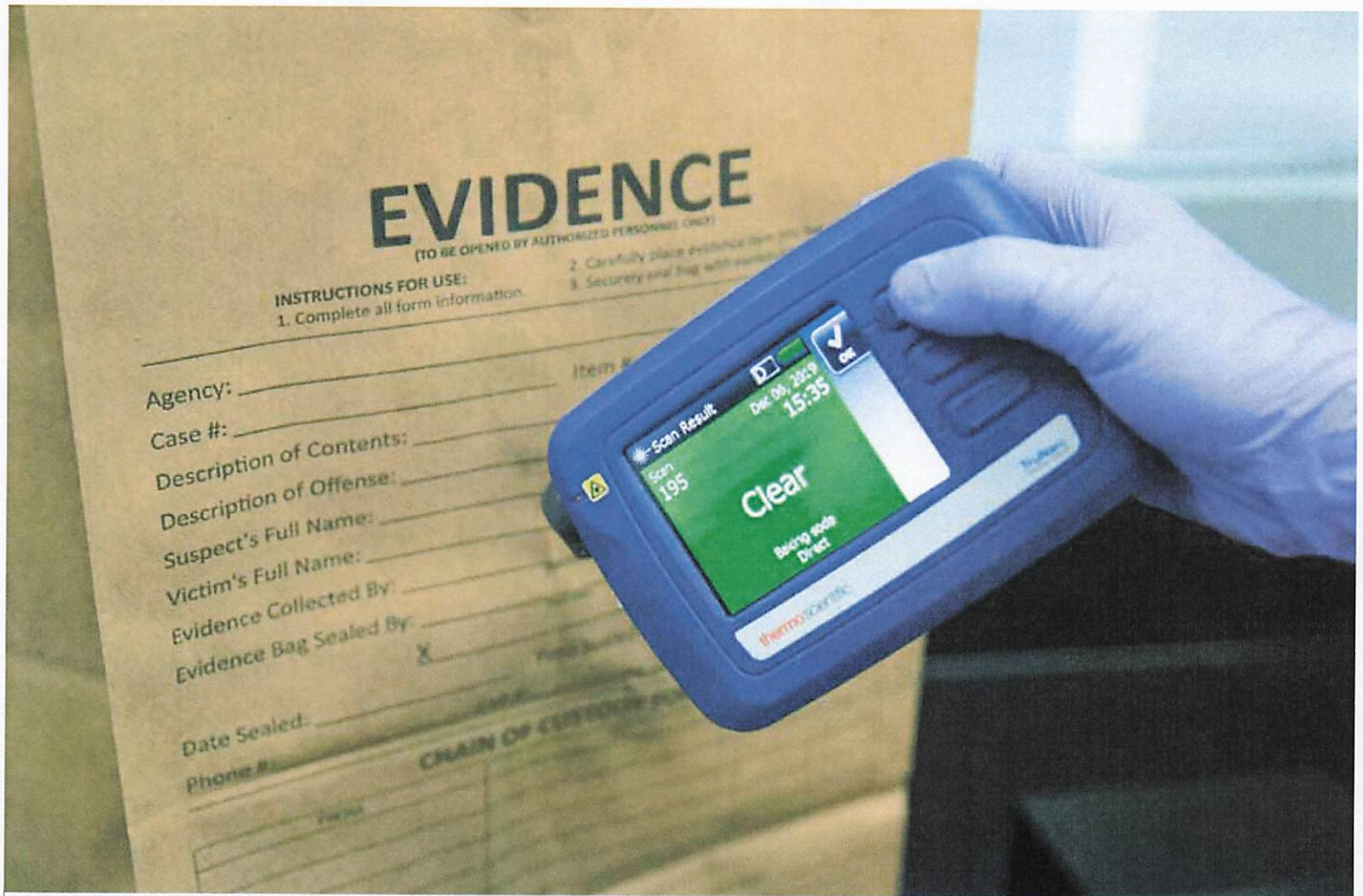
Wet chemistry kits require multiple steps with user interpretation. Some drugs require multiple chem kits to make the correct call. Handheld Raman provides a more accurate and reliable test, and is a total solution.

10



Leadership and Innovation

Handheld Raman technology helps law enforcement respond to the rising demands on police services. The analyzer improves testing accuracy, speeds prosecution and protects the community—all while reducing costs.



TruNarc: Efficient, Economical, Safe

Agencies across the United States who deploy TruNarc are seeing immediate benefits:

- Even little known substances can be identified almost instantly in the field
- The need for Law Enforcement Officers to handle potentially lethal narcotics is greatly reduced
- Valuable lab time is freed up for higher priority cases
- Reduced demand for lab testing delivers significant cost savings

benefits

stay ahead of the curve: safe, precise

quickly identified fentanyl!

TruNarc Success Stories

Quincy PD, Massachusetts: Little-known Drugs Identified Quickly

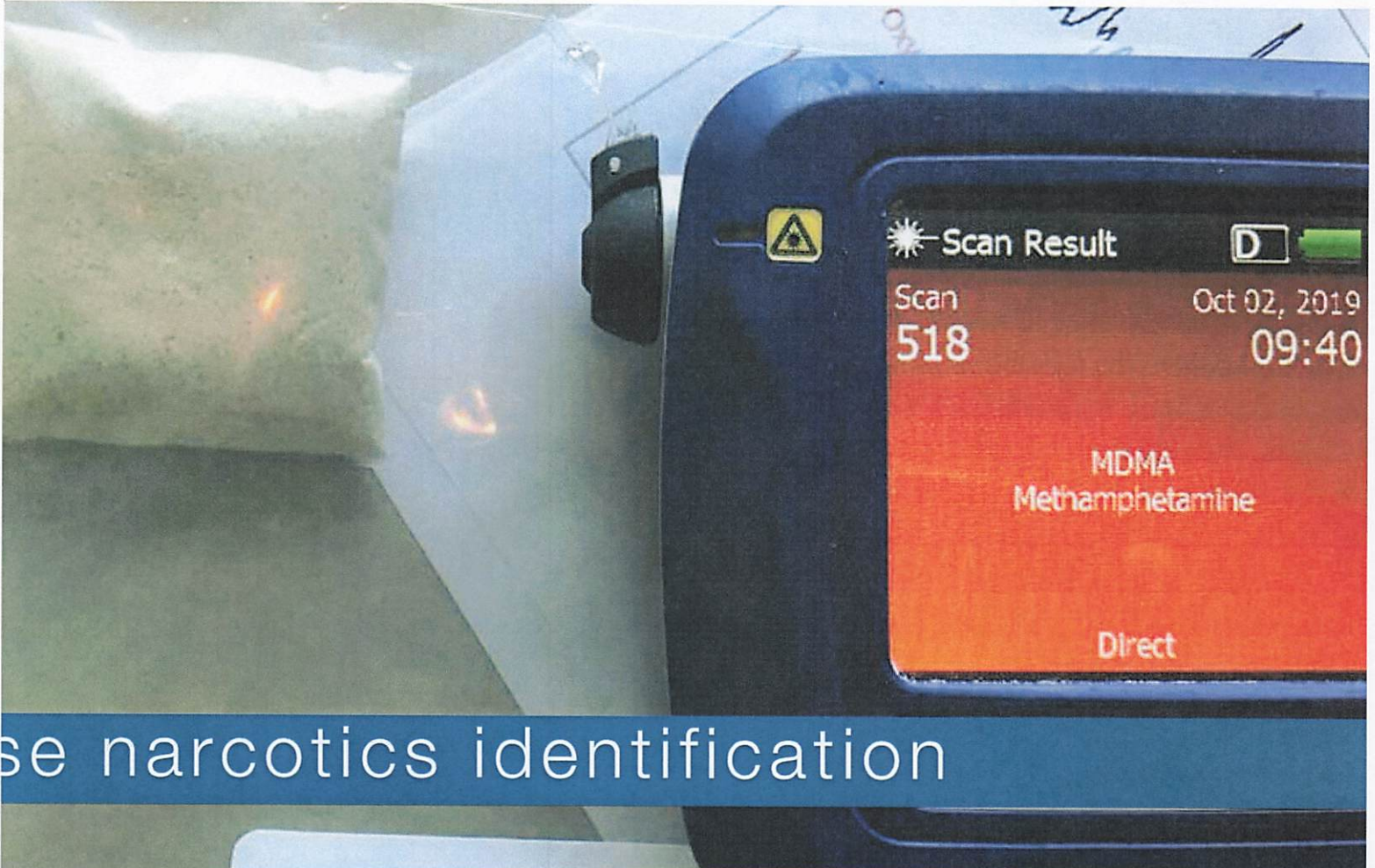
- TruNarc immediately identified an unknown sample as Alpha-PVP (“Flakka”) a synthetic cathinone
- Official state-wide alert about new drug issued next day

Etowah County, Alabama: Reduced Court Wait Times

- *“We’re definitely seeing a benefit because of TruNarc. We’re able to take cases to the grand jury where before we didn’t have a toxicology report. Now, a defendant doesn’t have to wait for his day in court. It’s been a godsend.”*
– Etowah County

Charles County, Maryland: Improved Protection for Law Enforcement Officers

- Using TruNarc, officers quickly identified fentanyl (a potent opioid absorbed by touch, potentially causing overdose or death) in heroin seizure.
- *“The safety of our officers is one of our top priorities, and this technology will allow us to safely identify controlled dangerous substances quickly and accurately without having to wait on lab results.”*
– Charles County



se narcotics identification



TruNarc Helps Keep Officers Safe

The use of illicit narcotics and opioids continues to skyrocket. Emerging lethal drugs like fentanyl and carfentanil threaten public safety.

To save lives and protect law enforcement officers, banned substances need to be identified quickly, safely and accurately.

The Thermo Scientific™ TruNarc™ Analyzer rapidly identifies drugs and can reduce the backlog of cases at crime labs while decreasing costs. This leads to quicker case resolution and helps drug offenders access treatment faster.

saves time and money





TruNarc: A more accurate and reliable presumptive test

Specifications	Description
Weight	1.25 lb (.570 kg)
Size	6.4 x 4.1 x 2.0 in. (16.26 x 10.41 x 5.10 cm)
Library	Controlled substances, cutting agents and precursors
Configurations	Unlimited or Pay-Per-Scan
Data export formats	CSV, SPC, PDF, SCZ, SCN
Battery	Rechargeable internal 3.7V battery pack (10 hrs.); DC wall adapter, 5V DC, 1.5A; optional car charger
Operating temperature	14° F to 122° F (-10° C to +50° C)
Language configurations	English, Arabic, Chinese, Czech, Dutch, French, Japanese, Polish, Russian, Spanish
Computer administration	TruNarc Admin software connected via microUSB to USB
Reachback support	Spectral analysis by staff chemists available
Validation	Third party test results available on request

To learn more about the TruNarc or schedule a demo, please visit us on line at: thermofisher.com/trunarc

TruNarc v1.10 substance library: Display names

Alarm



1 1,4-Dibenzylpiperazine (DBZP)

2 1-Naphthyl U-47700

3 2,5-Dimethoxyfentanyl

4 2SB-NBOMe

5 2SC-NBOMe

6 2SD-NBOMe

7 2SE-NBOMe

8 2SI-NBOMe

9 2SN-NBOMe

10 2SP-NBOMe

11 2S17-NBOMe

12 2S17-NBOMe

13 2-M (Amivondar)

14 2C-B (phenethylamine)

15 2C-C (phenethylamine)

16 2C-D (phenethylamine)

17 2C-E (phenethylamine)

18 2C-H (phenethylamine)

19 2-C (phenethylamine)

20 2C-I (phenethylamine)

21 2C-N (phenethylamine)

22 2C-P (phenethylamine)

23 2C-T (phenethylamine)

24 2C-T (phenethylamine)

25 2-F-MeO-MPT

26 2-F-MeO-MPT

27 2-MAPB

28 2-Methyl AP-237

29 2-Methylmethcathinone (2-MMC)

30 3,4-Dichloromethylphenylacetate

31 3,4-Dimethylmethcathinone

32 3-Bromomethylphenylacetate

33 3-Bromomethylmethcathinone (3-BMC)

34 3-Chloromethylmethcathinone (3-CCM)

35 3-Chloromethylmethcathinone (3-CMC)

36 3-Ethylmethcathinone (3-EMC)

37 3-Fluoromethylphenylacetate

38 3-Fluoromethylmethcathinone (3-FMC)

39 3-Fluorophenethylamine

40 3-MeO-PCP

41 3-Methoxymethylphenylacetate

42 3-Methylmethcathinone (3-MMC)

43 4-APDB

44 4-Bromomethylphenylacetate (4-BMC)

45 4-Bromomethylmethcathinone (4-BMC)

46 4-Chloro-2,5-DMA

47 4-Chloro-2,5-DMA

48 4-Chloroethcathinone (4-CEC)

49 4-Chloromethylmethcathinone (4-CMC)

50 4-Chloro-N-isopropylmethcathinone

51 4-Cyano-2,5-DMA

52 4-Cyano-2,5-DMA

53 4-Cyano-2,5-DMA

54 4-Ethylmethcathinone

55 4-Ethylmethcathinone

56 4-Fluoro-PV8

57 4-Fluoro-alpha-PVP (cathinone)

58 4-Fluoroamphetamin

59 4-Fluoroduphethedrone (cathinone)

60 4-Fluoromethylmethcathinone (4-FMC)

61 4-Fluoromethylmethcathinone (4-FMC)

62 4-Fluoropropylphenethylamine

63 4-MeO-alpha-PVP (cathinone)

64 4-MeO-DMT

65 4-MeO-PCP

66 4-Methoxy-PV8

67 4-Methylacetylphenethylamine

68 4-Methylamphetamin

69 4-Methylamphetamin

70 4-Methylmethcathinone (4-MEC)

71 4-Methylphenethylamine (cathinone)

72 5-APB

73 5-APB

74 5-Chloro-4-AMBA (cathinone)

75 5-Chloro-4-AMBA (cathinone)

76 5-Chloro-UR-144 (cathinone)

77 5-DBRPV

78 5-EAPB

79 5-Fluoro-AMBA (cathinone)

80 5-Fluoro-AMBA (cathinone)

81 5-Fluoro-ADB (cathinone)

82 5-Fluoro-ADIBA (cathinone)

83 5-Fluoro-AEB (cathinone)

84 5-Fluoro-AKB48 (cathinone)

85 5-Fluoro-AMB (cathinone)

86 5-Fluoro-AMYL-P7A (cathinone)

87 5-Fluoro-EDMB-PINA (cathinone)

88 5-Fluoro-EDMB-PINA (cathinone)

89 5-Fluoro-MN-18 (cathinone)

90 5-Fluoro-NMBI (cathinone)

91 5-Fluoro-NPE-22 (cathinone)

92 5-Fluoro-PB-22 (cathinone)

93 5-Fluoro-SDB-006 (cathinone)

94 5-IAI

95 5-IT

96 5-MAPB

97 5-MeO-DALT

98 5-MeO-DPT

99 5-MeO-MPT

100 6-APDB

101 6-Bromo-MDMA

102 6-Chloro-MDMA

103 6-FAPB

104 7-APDB

105 A-834735 (cathinone)

106 AB-001 (cathinone)

107 AB-CHMINACA (cathinone)

108 AB-FUBINACA (cathinone)

109 AB-PINACA (cathinone)

110 Acetylphenethylamine

111 Acetylphenethylamine

112 ADB-FUBINACA (cathinone)

113 ADB-PINACA (cathinone)

114 AH-7921

115 AKB48 (APINACA) (cathinone)

116 Alfenit

117 alpha-Methylacetylphenethylamine

118 alpha-Methylphenethylamine

119 alpha-Methylphenethylamine (AMT)

120 alpha-PVP (cathinone)

121 alpha-PVP (cathinone)

122 Alprazolam

123 AM1220 (cathinone)

124 AM1235 (cathinone)

125 AM1241 (cathinone)

126 AM1248 (cathinone)

127 AM2201 (cathinone)

128 AM2233 (cathinone)

129 AM694 (cathinone)

130 AM694 (cathinone)

131 Amphetamine

132 AP-237

133 APC (cathinone)

134 APC-CHMINACA (cathinone)

135 APC-FUBINACA (cathinone)

136 APC-PICA (cathinone)

137 BB-22 (cathinone)

138 Benzphetamine

139 Benzphetamine

140 Bk-2C-B

141 Bk-2C-B

142 Bromadi

143 Bromo-dragonFLV (phenethylamine)

144 Bromphen

145 Bupropion

146 Bupropion

147 Butylal

148 Butylphenethylamine

149 Butylphenethylamine (cathinone)

150 Butylphenethylamine

151 BZP

152 Carfentanil

153 Carisoprodol

154 Cathinone

155 CB-13

156 Clozapam

157 Clozapam

158 Cocaine

159 Cocaine base

160 Cocaine HCl

161 Codeine

162 CP-497 497 (cathinone)

163 Crotonylphenethylamine

164 CUMYL-TFPINACA (cathinone)

165 Cyclobenzapram

166 Cyclobutylphenethylamine

167 Cyclohexylphenethylamine

168 Cyclopropylphenethylamine

169 Cyclopropylphenethylamine

170 Deschloroketamine

171 Desomorphine

172 Dextromethorphan (DXM)

173 Diazepam

174 Dibutylone (bk-MDMA) (cathinone)

175 Dimethylmethcathinone

176 Dimethylphenoxethylamine (DMAPE)

177 Dimethylphenoxethylamine (DMPE)

178 Diphenhydramine (DPM)

179 Diphenhydramine (DPM)

180 Diphenhydramine (DPM)

181 Dimethylphenoxethylamine (DMPE)

182 Diphenhydramine (DPM)

183 Diphenhydramine (DPM)

184 Diphenhydramine (DPM)

185 EAM-2201 (cathinone)

186 EMB-FUBINACA (cathinone)

187 Ephenit

188 Ethylone (cathinone)

189 Ethylphenethylamine

190 Etizam

191 Etylone (cathinone)

192 FDU-PB-22 (cathinone)

193 Fenethylamine

194 Fenethylamine

195 Fluorazepam

196 Fluorazepam

197 Fluorazepam

198 Fluorazepam

199 Fluorazepam

200 Fluoxetine

201 Fluoxetine

202 FUB-AMB (cathinone)

203 FUB-JWH-018 (cathinone)

204 FUB-PB-22 (cathinone)

205 Furanylphenethylamine

206 Gabapentin

207 GBL

208 GHB

209 Heroin

210 Hexamylfentanyl

211 HU-210 (cathinone)

212 HU-210 (cathinone)

213 Hydrophorone

214 Isobutylfentanyl

215 Isopropyl U-47700

216 Isodesmetazepam

217 Isotrizazepam

218 JWH-015 (cathinone)

219 JWH-018 (cathinone)

220 JWH-019 (cathinone)

221 JWH-020 (cathinone)

222 JWH-073 (cathinone)

223 JWH-081 (cathinone)

224 JWH-122 (cathinone)

225 JWH-182 (cathinone)

226 JWH-200 (cathinone)

227 JWH-203 (cathinone)

228 JWH-210 (cathinone)

229 JWH-250 (cathinone)

230 JWH-412 (cathinone)

231 Ketamine

232 Levorphanol

233 Lisaxifenamine

234 MAB-CHMINACA (cathinone)

235 MAM-2201 (cathinone)

236 mCPA

237 MDA

238 MDAI

239 MDEA

240 MDMA

241 MDMA-CHMINACA (cathinone)

242 MDMA-FUBINACA (cathinone)

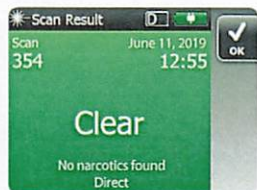
243 MDPFP (cathinone)

244 MDPFP (cathinone)

245 MDPFP (cathinone)

2

Clear



- | | | | |
|--------------------------------|-------------------------------|-----------------------------|-------------------------------|
| 1 2-Ethylamino- 1-phenylbutane | 21 Diltiazem | 41 Lidocaine | 62 Piracetam |
| 2 Antipyrine | 22 Dimethyl aminocantipyrene | 42 Loratidine | 63 Plaster of Paris |
| 3 Atropine | 23 Dimethyl sulfone | 43 Low density polyethylene | 64 Poly(propylene glycol) |
| 4 Baby powder | 24 Diphenhydramine (Benadryl) | 44 Magnesium citrate | 65 Polyethylene glycol |
| 5 Baking soda | 25 Dipyrone | 45 Magnesium stearate | 66 Polyethylene terephthalate |
| 6 Benzocaine | 26 Epsom salt | 46 Magnesium sulfate | 67 Polypropylene |
| 7 Boric acid | 27 Ethanol | 47 Maltose | 68 Polyvinyl chloride |
| 8 Brucine | 28 Ethyl benzoate | 48 Mannitol | 69 Procaine* |
| 9 Caffeine* | 29 Fructose | 49 Methyl salicylate | 70 Propylphenazone |
| 10 Calcium carbonate | 30 Glucose | 50 Methylhexanamine (DMAA) | 71 Quinine |
| 11 Calcium stearate | 31 Glutamine | 51 Minoxidil | 72 Saccharin |
| 12 Calcium sulfate | 32 Griseofulvin | 52 Naloxone* | 73 Silicon dioxide |
| 13 Cellulose | 33 Guaifenesin | 54 Naproxen | 74 Sodium sulfate |
| 14 Chloroquine | 34 Gypsum | 55 Nicotinamide* | 75 Sorbitol |
| 15 Citric acid | 35 High density polyethylene | 56 Nicotine | 76 Sucrose |
| 16 Confectioner's sugar | 36 Hydroxyzine | 57 Nicotinic acid | 77 Sugar |
| 17 Copper phthalocyanine | 37 Inositol | 58 N-Methyl- phenethylamine | 78 Tetracaine |
| 18 Corn starch | 38 Isopropyl benzylamine | 59 Noscapine | 79 Theophylline |
| 19 Creatine | 39 Lactose | 60 Papaverine* | 80 Titanium oxide |
| 20 Dextrose | 40 Levamisole (Tetramisole) | 61 Phenacetin | 81 Vitamin C |

* These substances may also be displayed after a TypeH scan.

Precursor/Chemical



- | | | | |
|------------------------------------|---|-------------------------------------|---|
| 1 1,4-Butanediol | 22 Bromobenzene | 42 Isopropanol | 63 Phenylnitropropene |
| 2 1-Phenethyl-4-piperidone (NPP) | 23 Chloroephedrine/ Chloropseudoephedrine | 43 Isosafrole | 64 Phosphoric acid |
| 3 Acetic acid | 24 Chloroform | 44 Lead acetate | 65 Piperidine |
| 4 Acetic anhydride | 25 Chlorophenyl cyclopentyl ketone | 45 MAPA | 66 Piperonal |
| 5 Acetone | 26 Chloropseudoephedrine | 46 Methanol | 67 Piperonyl methyl ketone (PMK, MDP2P) |
| 6 Acetyl bromide | 27 Cyclohexane | 47 Methyl ethyl ketone (MEK) | 68 PMK (MDP2P) methyl glycidate |
| 7 Acetyl chloride | 28 Cyclohexanone | 48 Methylamine HCl | 69 PMK Glycidic acid (sodium salt) |
| 8 Acetyl norfentanyl | 29 Despropionyl fentanyl (ANPP) | 49 MYCP | 70 Potassium permanganate |
| 9 AIBN | 30 Despropionyl para-fluorofentanyl | 50 N-Benzyl para-fluoro norfentanyl | 71 Propyl acetate |
| 10 Ammonium chloride | 31 Dichloromethane | 51 N-Benzyl phenyl norfentanyl | 72 Pseudoephedrine |
| 11 Ammonium nitrate | 32 Diethyl ether | 52 N-Isopropylbenzylamine | 73 Red phosphorus |
| 12 Ammonium sulfate | 33 Dihydrosafrole | 53 Nitric acid | 74 Safrole |
| 13 Anthranilic acid | 34 Dimethylacetamide | 54 N-Methyl cyclopropyl norfentanyl | 75 Sodium acetate |
| 14 APAA | 35 Ephedrine | 55 N-Methyl norfentanyl | 76 Sodium carbonate |
| 15 APAAN | 36 Ethyl acetate | 56 N-Methylephedrine | 77 Sulfuric acid |
| 16 Barium sulfate | 37 H-Phe- Cyclohexylamide | 57 Norephedrine | 78 t-BOC Pseudoephedrine |
| 17 Benzoic acid | 38 Hydrogen Peroxide | 58 Norfentanyl | 79 Toluene |
| 18 BMK ethyl glycidate | 39 Hydroxylamine | 59 Palladium chloride | 80 White Fuel (camping) |
| 19 BMK Glycidic acid | 40 Hydroxylimine | 60 Phenethylamine | 81 Xylene |
| 20 BMK Glycidic acid (sodium salt) | 41 Hypophosphorous acid | 61 Phenyl-2-propanone (P2P, BMK) | |
| 21 BMK methyl glycidate | | 62 Phenylacetic acid | |

Type H Alarm



- | | | | |
|-------------------------|-------------------|--|---------------------------|
| 1 25B-NBOMe | 7 Alprazolam | 12 Fentanyl Compound or Methamphetamine ^ † | 16 Hydromorphone* |
| 2 25C-NBOMe | 8 Buprenorphine # | 13 Flubromazolam | 17 Lorazepam |
| 3 25I-NBOMe | 9 Clonazepam | 14 Heroin | 18 MDMA |
| 4 2C-B (phenethylamine) | 10 Cocaine HCl | 15 Heroin w/Fentanyl Compound or Methamphetamine † | 19 Oxycodone* |
| 5 2C-E (phenethylamine) | 11 Diazepam | | 20 Oxymorphone* |
| 6 2C-I (phenethylamine) | | | 21 Synthetic Cannabinoid+ |

* Some low dose pills require a Type H Kit for identification.

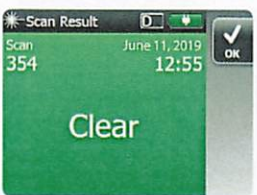
Buprenorphine both tablet and strip.

+ A "Synthetic Cannabinoid" screen result encompasses the individual cannabinoids listed above.

^ Fentanyl Compound includes fentanyl and fentanyl analogs.

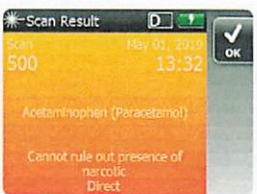
† Combined result

Type H Clear



- Caffeine
- Naloxone
- Nicotinamide
- Noscapine
- Papaverine
- Procaine
- Quinine

Warning



- Acetaminophen (Paracetamol)*
- Aspirin
- Ibuprofen*

These substances have a strong Raman signal which can mask certain narcotics. Additional testing via an alternate method is recommended.

* These substances may also be displayed after a TypeH scan.

Learn more at thermofisher.com.trunarc

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TruNarc Scan Report

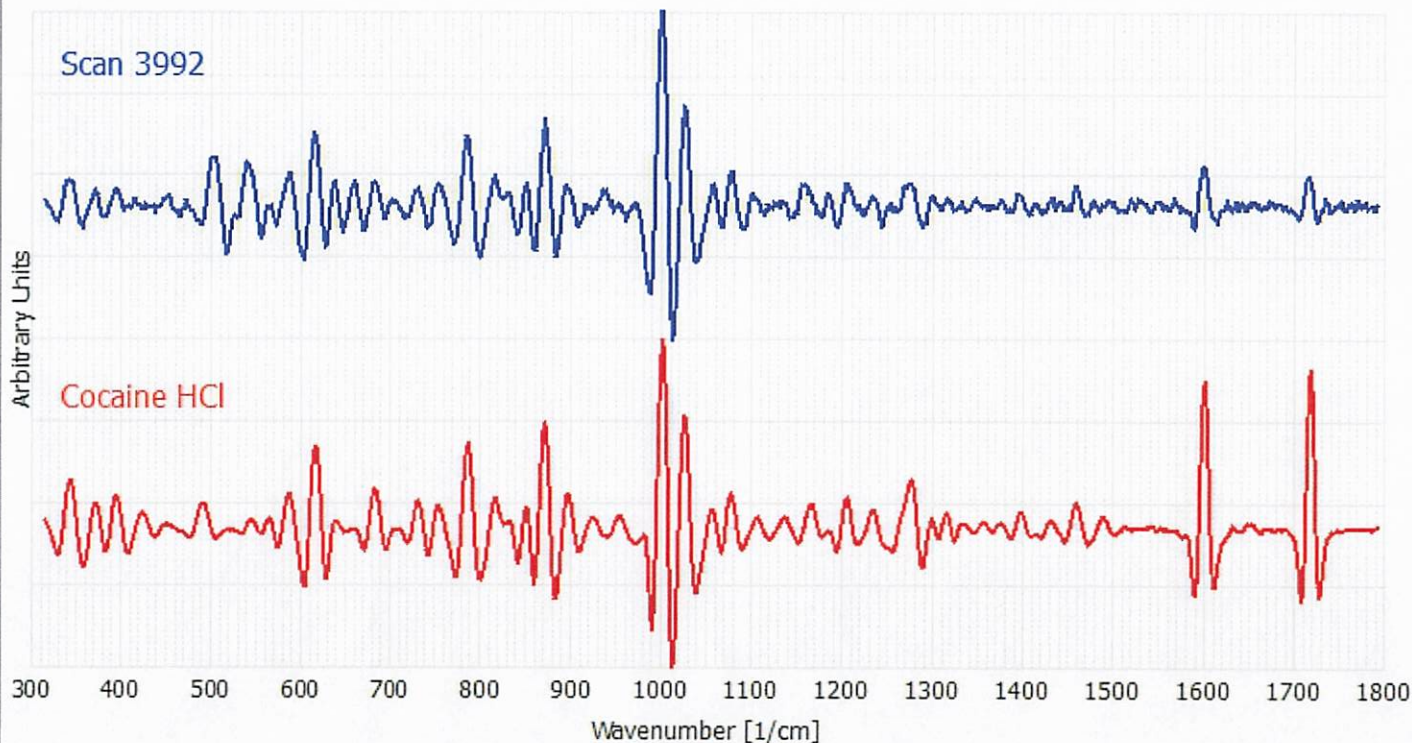
Created 09/11/18

Scan 3992 Sep 10, 2018 17:59

Cocaine HCl

Scan Result: Alarm
Name: Cocaine HCl
Scan ID: 3992
Analyzer SN: TN1077
Time: Sep 10, 2018 17:59:18

Previous check: Self Check Passed
Scan ID: 3991
Performed: Sep 10, 2018 17:57:44
Next check: Self Check Passed
Scan ID: 3993
Performed: Sep 10, 2018 18:00:38



Comments: 1 of 4 p/b's containing white powder that were inside a white napkin/paper towel that was found hidden behind driver's seat of Costesoto's vehicle.

Case ID: 18044532
Defendant(s): Miguel Guellys COSTESOTO
Testing Officer: Det. B. Coen
Arrest/Case Officer: Det. J. Cassidy
Charges: Distribution Class B-Cocaine (COSTESOTO) and PWID Class B-Cocaine (COSTESOTO)

TruNarc Scan Report

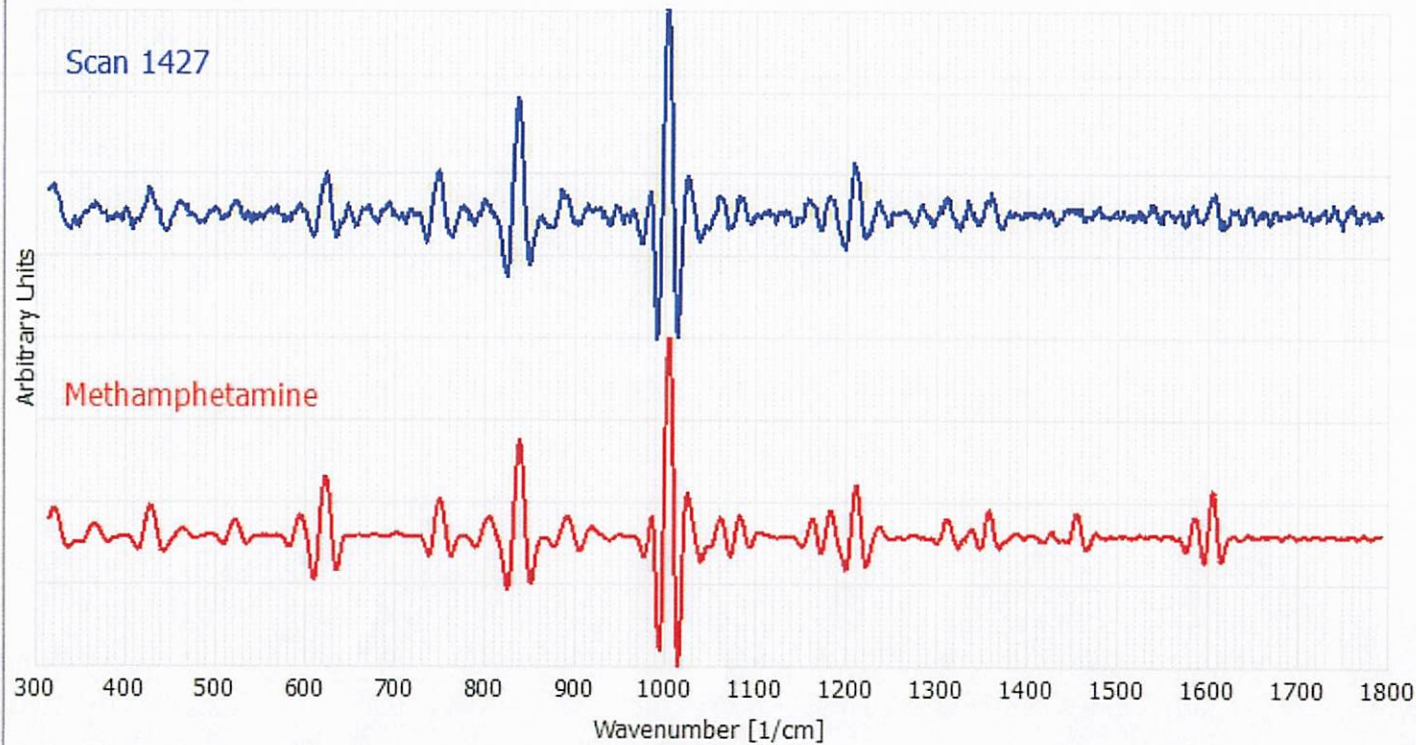
Created 09/11/18

Scan 1427 Aug 23, 2018 10:03

Methamphetamine

Scan Result: Alarm
Name: Methamphetamine
Scan ID: 1427
Analyzer SN: TN1213
Time: Aug 23, 2018 10:03:31

Previous check: Self Check Passed
Scan ID: 1426
Performed: Aug 23, 2018 10:03:00
Next check: Self Check Passed
Scan ID: 1428
Performed: Aug 23, 2018 10:06:32



Comments: p/b containing a clear crystal substance
Case ID: 18042438
Defendant(s): Claude FERNANDES
Testing Officer: Det. J. Cassidy
Arrest/Case Officer: Det. J. Bossart
Charges: PWID Class B (Methamphetamine)

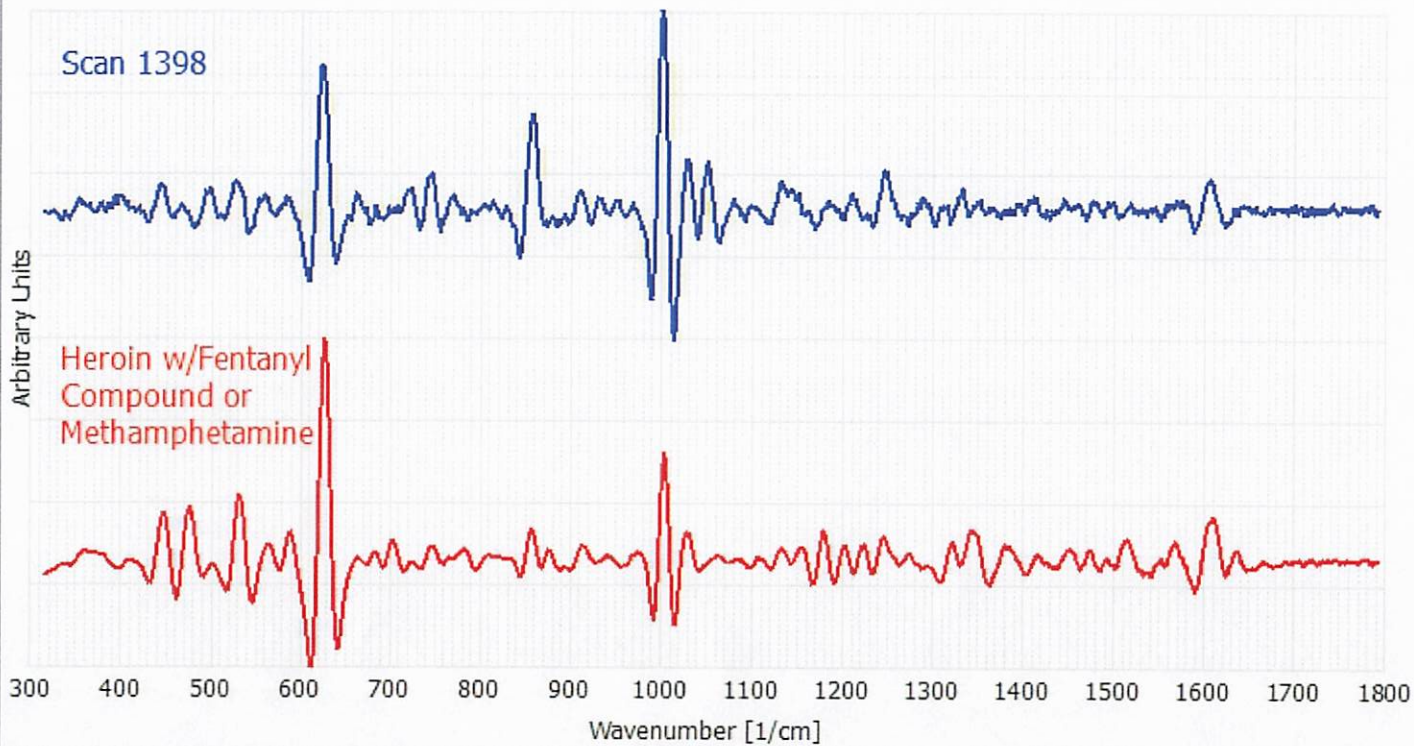
TruNarc Scan Report

Created 09/11/18

Scan 1398 Aug 06, 2018 21:55
Heroin w/Fentanyl Compound or Methamphetamine
Fentanyl Compound includes Fentanyl and analogs

Scan Result: Alarm
Name: Heroin w/Fentanyl Compound or Methamphetamine
Scan ID: 1398
Analyzer SN: TN1213
Time: Aug 06, 2018 21:55:09

Previous check: Self Check Passed
Scan ID: 1397
Performed: Aug 06, 2018 21:39:57
Next check: Self Check Passed
Scan ID: 1399
Performed: Aug 06, 2018 21:58:48



Comments: 1 of 8 p/b's brown powder seized from Lightfoot (H kit scan)
Case ID: 18039445
Defendant(s): Gregory Lightfoot, Larry Jefferson and Daniel Mercado
Testing Officer: Det. B. Coen
Arrest/Case Officer: Det. W. O'Brien
Charges: Drug Violations

TruNarc Scan Report

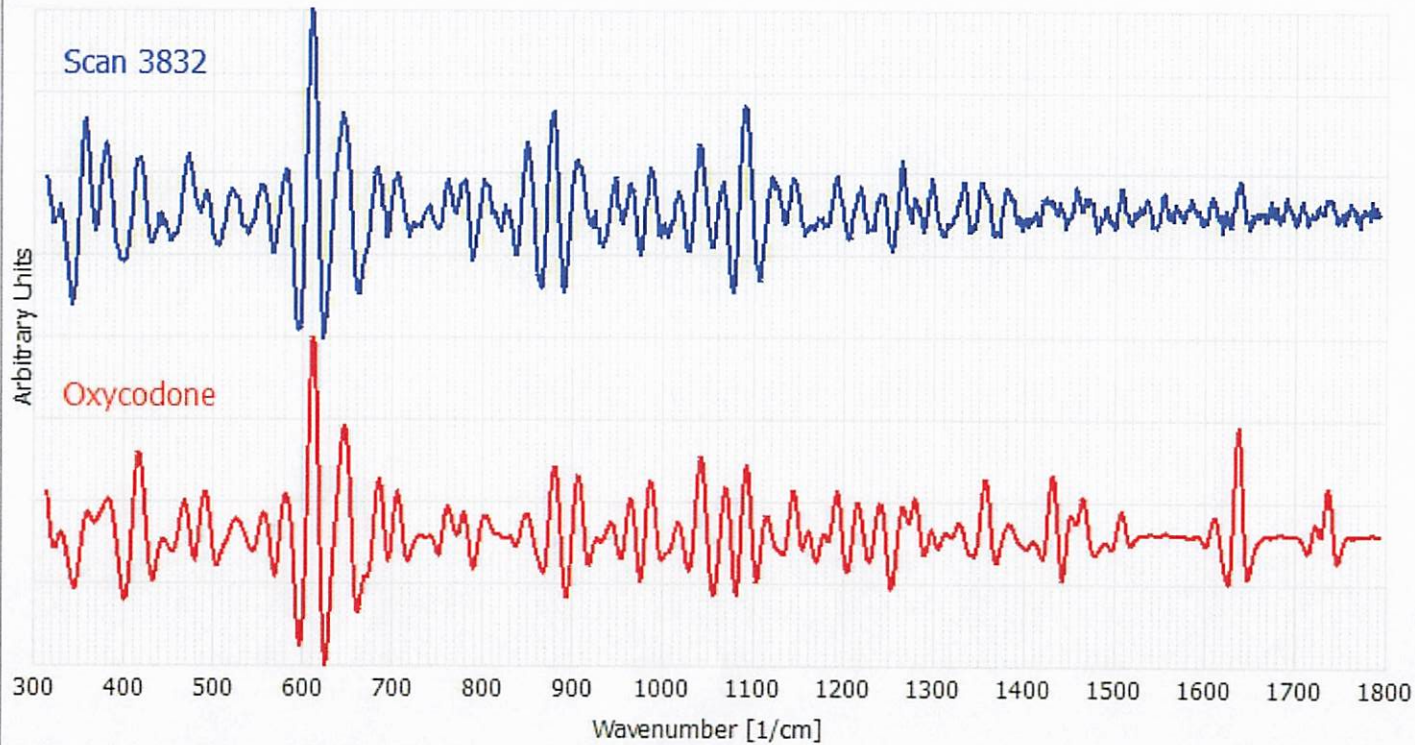
Created 09/11/18

Scan
3832 Jul 30, 2018
23:03

Oxycodone

Scan Result: Alarm
Name: Oxycodone
Scan ID: 3832
Analyzer SN: TN1215
Time: Jul 30, 2018 23:03:36

Previous check: Self Check Passed
Scan ID: 3831
Performed: Jul 30, 2018 23:03:12
Next check: Self Check Passed
Scan ID: 3833
Performed: Jul 30, 2018 23:06:32



Comments: round blue tablet marked "K9"
Case ID: 18038041
Defendant(s): Sean King
Testing Officer: Det. B. Coen
Arrest/Case Officer: Det. S. Glennon
Charges: Drug Violations

TruNarc Scan Report

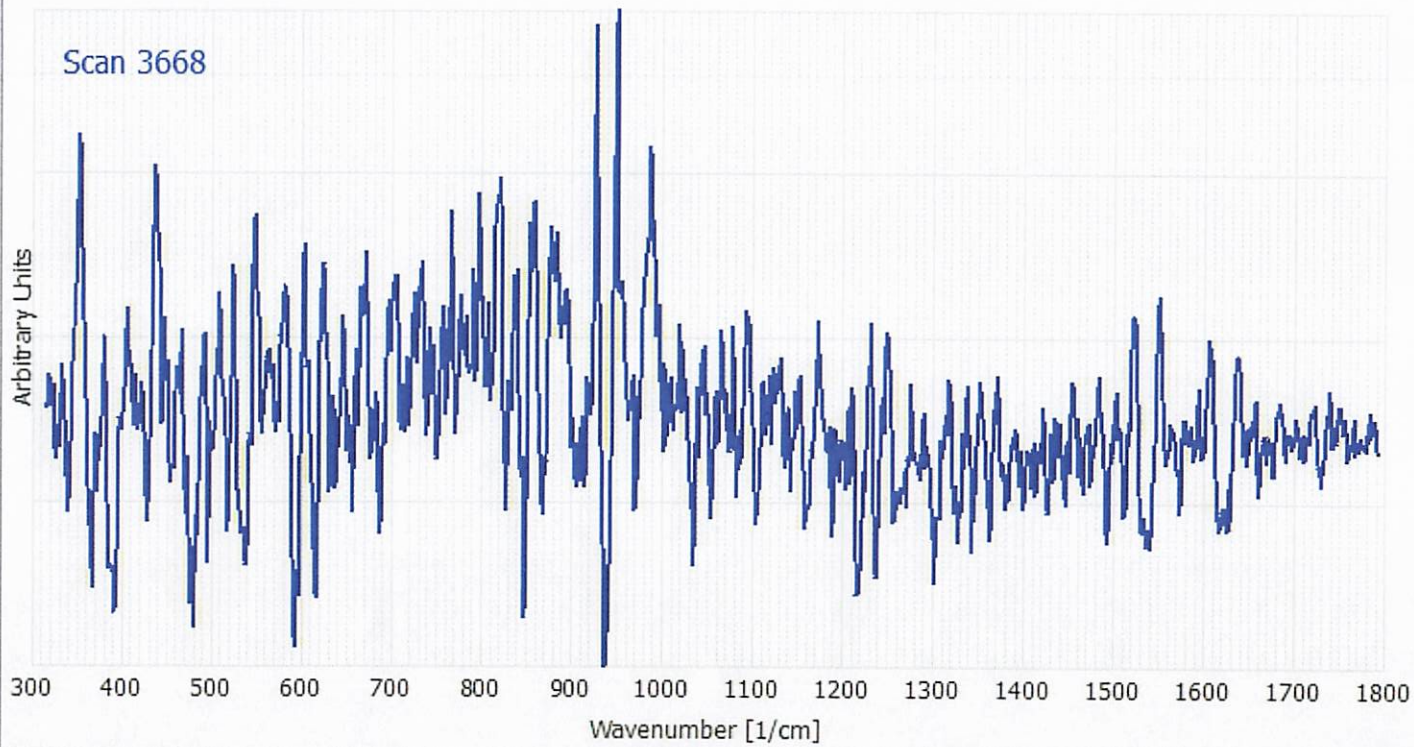
Created 09/11/18

Scan 3668 Apr 11, 2018 14:56

Inconclusive

Scan Result: Inconclusive
Name: Inconclusive
Scan ID: 3668
Analyzer SN: TN1215
Time: Apr 11, 2018 14:56:40

Previous check: Self Check Passed
Scan ID: 3667
Performed: Apr 11, 2018 14:56:05
Next check: Self Check Passed
Scan ID: 3669
Performed: Apr 11, 2018 15:02:31



Comments: P/B containing tan powder substance (Direct Scan)
Case ID: MSP UC Case
Defendant(s): Under Investigation
Testing Officer: Det. B. Coen
Arrest/Case Officer: MSP NCDTF

Type H kit for TruNarc

Solution kit enhances real-world ability of field-based analyzer

Key Words

Narcotics, fentanyl, heroin, Raman spectroscopy, fluorescence, field testing

Introduction

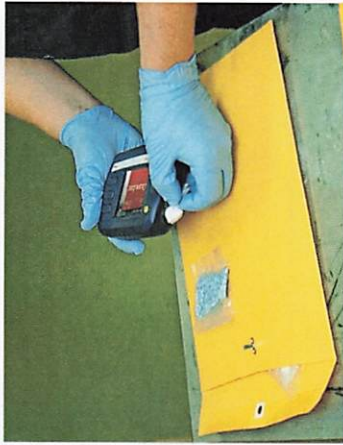
Many common controlled substances are easily identified with the Thermo Scientific™ TruNarc™ analyzer, using point-and-shoot analysis. Some substances, however, exhibit fluorescence or are present in very low concentrations. These target samples can present a challenge for Raman spectroscopy, requiring an additional step to ensure successful analysis.

Many of the most common controlled substances, such as cocaine and methamphetamine, are highly amenable to Raman spectroscopy and present few analysis challenges. The TruNarc analyzer has been successfully deployed for presumptive analysis of these and other suspected narcotics worldwide.

However, a phenomenon known as fluorescence can mask the Raman spectrometry signal of some narcotics, much like glare from sunlight can mask the subject in a photo from a camera. Fluorescence can hinder data collection of some narcotics, such as street heroin.

In addition, the target chemical in suspected narcotics may not be present in high enough concentration for conventional Raman spectroscopy to identify it. For instance, the active components in some prescription drugs are in a very low concentration, making identification a challenge.

To overcome these challenges – yet maximize the benefits of a handheld Raman analyzer – we have developed a Solution Kit (Type H) that enhances the Raman signal of the target substance while decreasing any nuisance fluorescence.



Science behind the Type H kit

The roughened metal surface on the Type H test stick has two primary attributes. First, the surface quenches the fluorescence, the phenomenon that may prevent analysis of the bulk material. Second, the surface enhances the Raman signal of the molecules adsorbed onto the surface of the roughened metal, which allows analysis of very small amounts of material.

When the TruNarc analyzer is used to measure the Type H stick, the laser light is focused onto the metal surface. As with point-and-shoot analysis, the spectrometer measures the unique spectral fingerprint of the molecules, and then compares the data collected with the on-board TruNarc library.

It should be noted that the spectra obtained on the test stick are different from those of a conventional Raman spectrum. To enable these new applications using the Type H Kit, Thermo Fisher Scientific scientists create a library item for each unique chemical using certified laboratory standards.

Summary

The Type H test kit further enhances the real-world utility of the TruNarc analyzer, enabling users to screen for specific narcotics that are fluorescent and/or at low concentration. A key enhancement is the ability to use the TruNarc analyzer to screen for such emerging synthetic opioids as fentanyl, fentanyl analogs, heroin and methamphetamine. Several low dose tablets are also identifiable using the Type H test kit in conjunction with the TruNarc analyzer for presumptive narcotics identification.

In the Americas
1-978-670-7460

In Europe, Middle East, Africa
49-89-3681-380

In Asia Pacific
852-2669-6669

Find out more at thermofisher.com/trunarc

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TruNarc Scan Report

Created 09/11/18

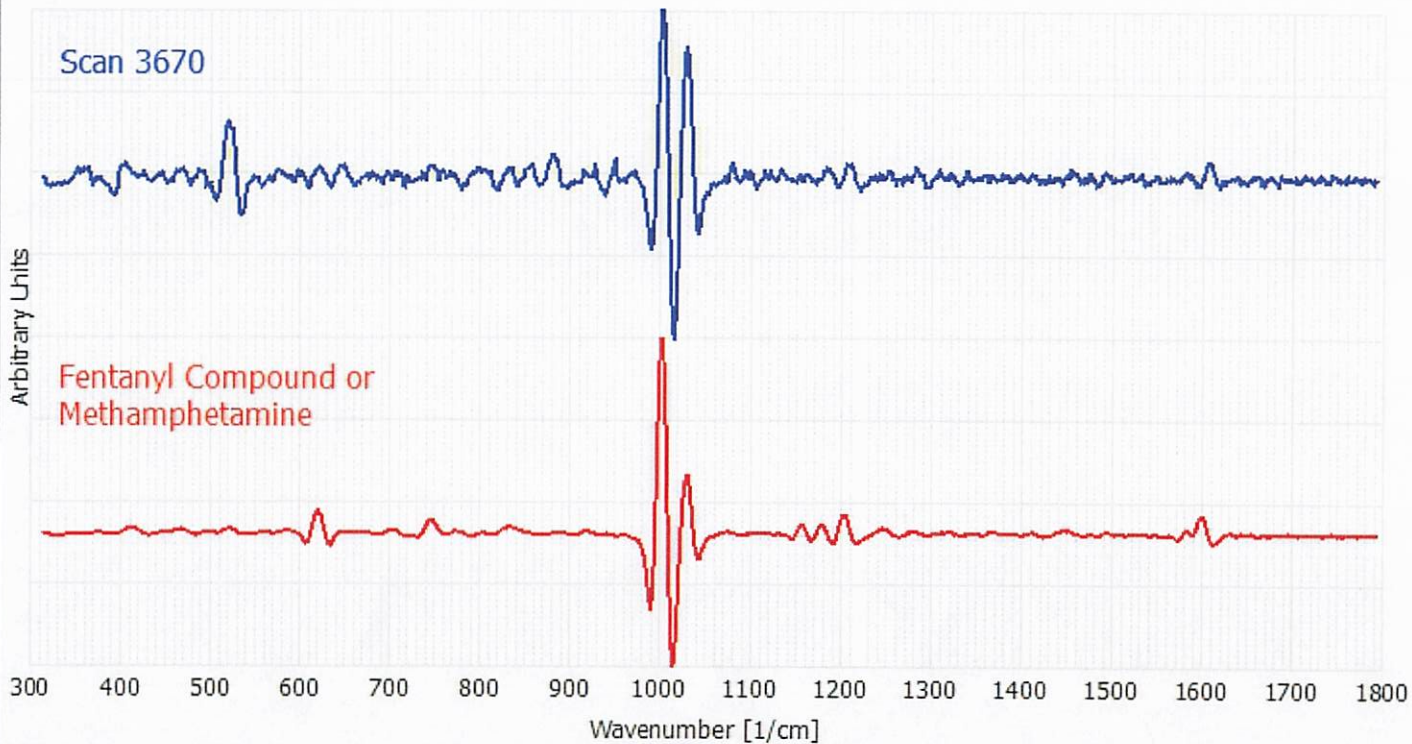
Scan 3670 Apr 11, 2018 15:17

Fentanyl Compound or Methamphetamine

Fentanyl Compound includes Fentanyl and analogs

Scan Result: Alarm
Name: Fentanyl Compound or Methamphetamine
Scan ID: 3670
Analyzer SN: TN1215
Time: Apr 11, 2018 15:17:58

Previous check: Self Check Passed
Scan ID: 3669
Performed: Apr 11, 2018 15:02:31
Next check: Self Check Passed
Scan ID: 3671
Performed: Apr 11, 2018 15:19:08



Comments: P/B containing tan powder substance (H kit scan)
Case ID: MSP UC Case
Defendant(s): Under Investigation
Testing Officer: Det. B. Coen
Arrest/Case Officer: MSP NCDTF
Charges: Under Investigation