Torrent LABORATORY, INC.

Statement of Qualifications

2016

California State Certified Environmental Services

for air, water, soil and beyond

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Foreword

Thank you for reviewing Torrent Laboratory's Statement of Qualifications.

Torrent Laboratory, Inc. ("Torrent") is a premier, full-service, environmental laboratory with air, water, and soil testing capabilities. Torrent was founded in 1993 and began by providing analytical testing services to industrial clients in the San Francisco-Bay Area. Over the last 20 years, Torrent has expanded its repertoire through steady investments in its facilities, equipment, and staff.

Torrent has built upon its industrial roots and developed strong relationships with over 300 clients. Today, our client base includes *inter alia* environmental consultants, local municipalities, private industries including high-tech and semiconductor companies, alternate energy development enterprises, biotech companies, pharmaceutical companies, contractors and California regulatory agencies. Torrent's growing community of loyal customers reflects our established record of delivering defensible results with efficient, appropriate methods and high quality data on time.

Why Choose Torrent?

Over the years, Torrent Laboratory has evolved into a unique, customer-centric organization using a Six Sigma culture. Through a disciplined, data-driven, measurement-based system approach to evaluating its operations, Torrent serves its clients by striving for perfection. The outcome is simple: ***reliable turnaround time (TAT) performance for delivering the highest level of defensible data.***

- Through years of investment in incremental improvement, Torrent has a 98–99% on-time success rate for Rush TAT projects
- For standard TAT projects (5 working days), Torrent has a 95–98% on-time success rate

This level of on-time performance is among the highest in the industry. Torrent diligently tracks its performance and is happy to provide a report upon request. Moreover, Torrent's service is strengthened by maintaining cutting-edge technology and an excellent, experienced project management and quality assurance team poised to answer any questions you may have.

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Torrent's primary geographical coverage is the Silicon Valley, Oakland, San Francisco, and the Central Valley. However, we have also extended our project experience to the Pacific Islands. We encourage you to visit our laboratory in Milpitas, California. We know you will be impressed with our dedicated staff, state-of-the-art facility, and our customer-centric culture.

Headquarters

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Fax	(408) 263-8293
Website	www.torrentlab.com
Email	customerservice@torrentlab.com
Contact	Mukesh Jani

Introduction

Torrent provides experienced, reliable services for a broad spectrum of testing under Hazardous Waste, Clean Water Act and Safe Drinking Water Act regulations. In addition, we offer Industrial Hygiene Services, Storm Water program support, and expertise to our clients in self-monitoring programs. Torrent's focused investment strategy has resulted in expanding our testing to include *NELAP accredited air analyses by TO-14 and TO-15, as well as Dioxins and Furans by EPA8290*. We have proven capacity for supporting large air sampling projects and large ongoing dioxin projects. We have added food pathogen testing by PCR to our microbiological capabilities as well. The laboratory is highly automated and equipped with state-of-the-art redundant instrumentation in every department. Since our equipment is newer than the Industry Standard, our downtime is the lowest in the industry, which translates into higher on time performance. Our investments in automated sample preparation equipment for semivolatiles has also resulted in faster turnaround and lower detection limits, including the fastest standard and rush dioxin report turnaround in the industry. Our facilities have undergone planned and systematic expansion over the years to assure the cleanest environment available for our client's testing needs.

MISSION STATEMENT:
to achieve growth and strengthen our leadership position in the industry by providing a spectrum of certified laboratory analysis services dedicated to helping clients meet regulatory requirements and protect the environment in which people live and work while maintaining a strong sense of social responsibility through active community outreach.

Certifications, Registrations & Insurance

** Copies of the following certificates and registrations will be provided upon request.*

Certifications

- Torrent is certified by the State of California, Department of Public Health's Environmental Laboratory Accreditation Program for soil and water testing (ELAP Certificate #1991)
- Torrent is certified by the Department of Defense, Accreditation body, ACLASS for Air, soil and water testing (DOD ELAP Certificate #ABE-1838)
- Torrent is National Environmental Laboratory Accreditation Program (NELAP) certified by Florida's Department of Environmental Protection for air testing (DEP Certificate #E871032)
- If your projects require global coverage, Torrent Laboratory is approved by the USDA to receive soil samples from anywhere in the world (Soil Permit Number: P330-07-00126)
- Torrent is a member of the American Industrial Hygiene Association (AIHA)

Firm Registrations

For the purposes of government solicitation, Torrent Laboratory is a registered firm with the following agencies who honor our DBE certification status:

- California Unified Certification Program (UCP) – Disadvantaged Business Enterprise (DBE) as defined by the U.S. Department of Transportation, 49 CFR, Part 26, as amended (Certificate #32045)
- Caltrans (California Department of Transportation)
- San Francisco Bay Area Rapid Transit District (BART)
- San Mateo County Transit District (Sam Trans)
- Peninsula Corridor Joint Powers Board (JPB)
- Santa Clara Valley Transportation Authority (VTA)
- PG&E (MBE/DBE)
- CA Dept. of General Services small business enterprise (SBE)
- CA Dept. of Industrial Relations (DIR) registered

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Insurance Coverage

Torrent Laboratory, Inc. maintains General and Comprehensive (including employers liability coverage) Professional Liability and auto insurance in support of our projects.

Customer Service

Torrent is dedicated to advancing analytical science while increasing process efficiency and ensuring consistent quality of service. We are committed to understanding our customer's requirements and the technical challenges inherent in sampling, testing, and analysis.

To this end, Torrent offers convenient hours, fast turnaround time, reliable courier service, easy ordering and scheduling, and individualized service. Our team of experienced project managers not only helps with regulatory questions, scheduling, and custom requirements, but also proactively assesses your data quality objectives to assure your project requirements are fulfilled. Because our clients often have critical time constraints, *we respond to all calls within 30 minutes*. Our Rush Turn-around service *achieves over 98% on-time delivery* and even higher on-time TAT during non-peak business periods.

Customer Support Services

Hours of operation

Monday – Thursday	8:30am – 7:00pm
Friday	8:30am – 7:00pm
After Hours	By prior arrangement only

Turnaround time

Torrent's standard turnaround time for the majority of our reports is five business days. We also offer **Torrent Express™ Rush Turnaround Services** that range from a telephone call within 30 minutes of completing an analysis to same day, 24 hours, 48 hours, and 72 hours TAT. Results are reported by 7:00pm on the agreed upon due date. Clients are advised to communicate with our project managers to make arrangements for Torrent Express™ Rush Turnaround Services or for weekend/holiday testing services.

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Courier service

Courier services are available to locations in Silicon Valley, Oakland, San Francisco, and the Sacramento to Bakersfield corridor when they are scheduled at least 24 hours in advance. For pickups scheduled at least 24 hours in advance, *Torrent will furnish approved sample containers with appropriate preservations and labels, trip blanks, and Chain of Custody forms at no charge*. Torrent offers web-based scheduling for couriers and bottle requests so that our clients may place orders at their own convenience.

Field services

Torrent will assist clients in the collection of water samples in a limited capacity. In situations where self-monitoring is required, our trained sample technician can arrange to take the necessary samples from designated sample points. In cases where a water composite sample is needed, Torrent can provide the equipment necessary to collect the sample correctly over the composite time stipulated by the regulator.

Project management

The cornerstone of Torrent's project management approach is our focus on planning, coordinating, integrating communication, and monitoring projects from the initial phone call to the final report.

Our staff has internalized the Six Sigma model in every aspect of its function. Torrent's project managers can help you with regulatory, scheduling, and custom requirements. Before sampling begins, we'll help you define the technical specifications for sampling and the appropriate measurement science. In addition, high levels of technical support are often requested after the receipt of data to help understand the data's usability for its intended purpose.

In their role, Torrent's project managers are responsible for the following tasks:

Prior to Receipt of Project

- Maintaining excellent client relations by understanding and reliably responding to client and project needs
- Assuring the process in place is designed to complete the project on time; for more complex projects, a start-up meeting will be organized before initiating work to assure the highest level of success
- Scheduling samples for arrival at the laboratory

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- Identifying all unique project requirements and informing all appropriate personnel
- Selecting fully qualified subcontractor laboratories, if needed
- Performing a review of all pre-project documents:
  - E.g., proposals, quotes, QAPPs, memos, e-mails, and telephone notes
- Ensuring all required preparations have been made by the laboratory to accommodate or meet project requirements
- Determining whether the laboratory has the capacity to analyze the samples and informing the client of that determination
- Communicating all known hazards associated with the samples to all appropriate personnel

Completeness Verification

The project manager also performs a third-level review. This level of review, which is required before results are submitted to clients, verifies the completeness of the data report and whether the analyses performed meet the project's requirements. The following items are part of the third-level review.

- During the analytical process, the project manager will notify clients of any issues arising from potential concern to the data quality objectives being achieved
- The project manager will review the report for completeness and will do an experienced technical review of the results
- All non-conformances, including holding time violations and data evaluation statements that impact data quality are accompanied by clearly expressed comments from the laboratory
- The final report is legible, contains all the supporting documentation required by the project, and is in the laboratory's standard format or a format required by the client
- Correlation of results for different parameters of a sample are reviewed for consistency
- The project manager will finalize a narrative to accompany the final report; this narrative will include relevant comments collected during the earlier reviews

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Quality Policy

Through Torrent's quality control system, our management team is committed to consistently providing our customers with data of known and documented quality that meets their requirements. Our policy mandates good professional practices to maintain quality, to uphold the highest quality of service, and to comply with the NELAC Standard, 2003. The laboratory ensures that personnel are free from any commercial, financial, and other undue pressures, which might adversely affect the quality of work. This policy is implemented and enforced through the unequivocal commitment of management, at all levels, to the Quality Assurance (QA) principles and practices outlined in our Quality Assurance Manual.

Because of our laboratory's highly qualified staff, the primary responsibility for quality rests with each individual within our organization. Every laboratory employee is tasked with ensuring that the generation and reporting of quality analytical data is a fundamental priority. Your project is subjected to quality checklists at every level of the process from login, to preparation and analysis and final reporting. Laboratory employees are required to familiarize themselves with the quality documentation and to implement the policies and procedures in their work. All employees are trained annually on ethical principles and procedures surrounding the data generation. *Torrent maintains a strict policy of client confidentiality.*

In support of our robust quality program, Torrent participates in external Performance Test (PT) samples as required for certification under California ELAP and Florida NELAP (Air Testing). *Torrent Laboratory consistently scores 95% or higher on its performance tests in PT program studies.* Upon request, Torrent will provide PT program information.

Environmental Testing Services

Torrent's full spectrum of certified environmental testing laboratory services are dedicated to supporting regulatory requirements for air, water, soil, industrial hygiene, storm water, and self-monitoring programs. The following is a summary of each area's features:

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Air

Air analysis is a rapidly evolving program driven by a recent discoveries in the industry that pathways for toxic exposures, such as vapor intrusion, present serious environmental challenges. For this reason, Torrent's Air Analysis Group has made significant investments in new methods and equipment technologies to support this recent regulatory trend.

Our chemists have leveraged established methodologies and have created advanced analytical procedures, including support for high and low level sub-ppbv reporting limits. Torrent offers unlimited technical support and a regular program for knowledge transfer, including techniques for proper air sampling. See *Table 1* below for a summary of our air testing services.

Torrent has the capacity to analyze both Summa canisters and Tedlar bags**.** Our state-of-the-art instrumentation systems can achieve the same 0.5-ppbv levels of detection for almost all compounds. Our Air Analysis Group can also provide 6L Summa canisters with accompanying gauges. All of our canisters are cleaned in house and certified, either in batch or individually, to be cleaner than the reporting limit for the specific sampling event.

Canisters, regulators, and manifolds

Torrent leads the industry by including sampling equipment as part of its air lab services. We facilitate the sampling process by providing our canisters, regulators, and manifolds efficiently. Summa canisters arrive on site ready for sampling and are equipped with a built-in pressure gauge to take the guesswork out of sampling and to save time for our customers. Manifolds are custom-built for each project, delivered clean and calibrated for sample collection over a pre-specified timeframe.

There are no rental, shipping, or receiving fees. Regulators are always provided at no extra charge with lab services. Manifolds are custom-built to the project's specification and are provided at no extra charge with lab services.

Air testing scope

See Attachment 1 for Torrent Laboratory's Florida Department of Environmental Protection certification for air testing under the National Environmental Laboratory Accreditation program (Florida DEP NELAP Certificate #E871032, Expiration Date 06/30/2015). *Table 1* is a summary of the testing areas offered and the methodologies available for air testing services.

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Table 1

Testing Area Offered	Methodology
Vapor Intrusion & Ambient Air	TO-14, TO-15
	TO-17
	TO-3 modified for TPH as Gasoline Range Hydrocarbons
	TO-10A, TO-11A
	TO-13
Indoor Air Soil Gas Monitoring	TO-14, TO-15, ASTM D 1946
Remediation Efficiency	TO-14, TO-15
	TO-17
	TO-3 modified
	ASTM-D 1946 / Fixed Gas
	ASTM-D 1945 / Natural Gas
Site Characterization	TO-14, TO-15
	TO-3 modified
	NIOSH 1550 modified for Diesel Range Hydrocarbons
	TO-17 including Gas and Diesel Range Hrydrocarbons

Water and Soil

Torrent is a California state-certified analytical laboratory with advanced sampling, testing, and reporting capabilities for water and soil analysis.

Clean Water Act (CWA) and Safe Drinking Water Act (SDWA) testing services

Torrent's water analysis capabilities support regulatory testing under the Clean Water Act for NPDES permit compliance, storm water runoff testing, and self-monitoring programs. Under our Storm Water Analysis services, we support our clients in maintaining compliance with complicated state storm water monitoring regulations, as well as the Safe Drinking Water Act primary and secondary standards. As part of our services to Self-Monitoring Program clients, we support their efforts to meet Water Pollution Control Plant (WPCP) requirements, QC programs for wastewater treatment plants, and low-level discharge criteria. We can also achieve the low level requirements for drinking water compliance in support of municipal agencies and the public.

Our Clean Water Act and Safe Drinking Water Act testing services are supported by, and in compliance with, procedures applied from the following published methods:

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- Methods for Chemical Analysis of Water and Wastes, March 1983, EPA/600/4-79/020
- Standard Methods for Examination of Water and Wastewater, 20th Edition, July 1995
- Code of Federal Register, 40 CFR Part 122, 136, et. al. Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act; National Primary Drinking Water Regulations; and National Secondary Drinking Water Regulations; Analysis and Sampling Procedures; Final Rule (Table II), March 2007
- Title 22 of the California Code of Regulations (CCR) approved methods for drinking water per the latest Method Update Rule (MUR)
- Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry, Method 200.7, Revision 4.4, EMMC Version
- Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma-Mass Spectrometry, Method 200.8, Revision 5.4, EMMC Version
- Determination of Perchlorate in Drinking Water Using Ion Chromatography, Method 314.0, Revision 1.0, November 1999
- n-Hexane Extractable Material and Silica Gel Treated n-Hexane Extractable Material by Extraction and Gravimetry, Method 1664, Revision A, February 1999, EPA-821-R-98-002
- Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater. Method 624, Appendix A to Part 136

Resource Conservation and Recovery Act (RCRA) testing services

Torrent Laboratory also supports water and solids testing under the Resource Conservation and Recovery Act (RCRA) for projects requiring groundwater and hazardous waste testing or characterization. Our RCRA testing services comply with procedures applied from the following published methods:

- Test Methods for Evaluating Solid Waste – Third Edition; Final Update III-B, Office of Solid Waste and Emergency Response, Washington, D.C., September 2005
- Leaking Underground Fuel Tank Field Manual: Guidelines for Site Assessment, Cleanup, and Underground Storage Tank Closure, October 1989
- Tri-Regional Board Staff Recommendations for Preliminary Investigation and Evaluation of Underground Tank Sites, 10 August 1990
- Title 22, California Code of Regulations, Chapter 11, Article 5, Appendix II, California Waste Extraction Test (WET)

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Department of Defense testing services

Torrent Laboratory has added capabilities and processes to meet the strict DOD QSM 5.0 standards and is now capable of achieving low level reporting for select methods. Torrent is also experienced at incremental sampling protocol per DOD requirements.

Certification

Please review Torrent Laboratory's California Department of Public Health, Environmental Laboratory Accreditation Program, Certificate #1991 for parameters certified under Hazardous Waste (Fields of Testing 114, 115, 116, 117, and 120). See *Attachment #2*.

Summary of testing offered for the CWA and RCRA programs

Table 2 provides a summary of the major environmental testing services offered by Torrent.

Table 2

VOLATILE ORGANICS	SEMI-VOLATILE ORGANICS	INORGANICS
Method 8260B	Method 8290 - Dioxins and Furans	Metals by Method 6010B (Simultaneous ICP)
Carbon Speciation	Method 8270C – 8270C SIM	Metals by Method 6020A (ICP-MS)
Fixed Gases	Method 8270C SIM – PNAs Method 8270C PNAs Only	Perchlorate by Method 314.0 and Method 6850
Natural Gas	Method 8081A Pesticides	Hexavalent Chromium by Method 218.6 and Method 7199
Non-Methane Organics	Method 8082 PCBs	Total Organic Carbon (TOC – Soil/Water) by Method 415.1
Method 8015M – TPH (Gasoline Range Organics)	Method 8321 Herbicides	Cyanide by Methods 335.1 and 335.2
1,4-Dioxane reported to ESL	Method 8330 Explosives	Oil and Grease by Method 1664A
Method 8015M – TPH Purgeables	Method 8015M – Diesel Motor Oil (includes other fuels)	California WET STLC (CCR, Chapter 11, Appendix 5, Article II)
Special Method Development	Method 8015M – Heavy Hydrocarbon Fingerprinting	TCLP by Method 1311 (inorganics and extractables)
Custom Method Development	Special Method Development	Water Quality Parameters

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Industrial Hygiene

Torrent offers a variety of analytical services for Industrial Hygiene testing. We continue to add relevant testing equipment and methodologies as our clients' needs evolve. We also provide advanced services, such as method development for unusual compound detection. Torrent can provide expert guidance on correct sampling techniques and steps for securing the correct sampling media. Torrent also maintains adequate inventories of Summa canisters and manifolds on hand to ensure project needs are promptly met. Torrent carefully screens and monitors its suppliers for pumps, cartridges, and sorbent materials to assure a constant level of quality.

Inorganics analysis

In support of inorganics analysis for Industrial Hygiene testing, we offer the following NIOSH and ASTM methodologies using Ion Chromatography, Inductively Coupled Plasma, UV and VIS spectrophotometry, and classical wet chemistry. Torrent can analyze inorganic acids, inorganic dusts, silica dusts (crystalline), and quartz dusts for the following analyses:

- Ammonia
- Hexavalent Chromium
- Cyanide
- Lead
- Beryllium
- ICAP Metals
- IC Anions and Cations
- Phosphorus

Volatile and semi-volatile organics analysis

In support of volatile and semi-volatile organics analysis for Industrial Hygiene testing, Torrent applies NIOSH, ASTM, OSHA, and EPA methodologies for the following organic compounds:

- Halogenated hydrocarbons
- Alcohols
- Ketones
- PCBs

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- PNAs
- Naphthas
- Oils and oil mist
- Heavy hydrocarbons

Additional Testing Capability

Torrent also offers custom analytical services in response to special project needs in support of the semiconductor sector or high technology R&D. Torrent has significant project expertise using its experienced analytical capability, and can be called upon to draw on its related analytical expertise to improve understanding of the chemical nature and impact on processes or raw materials. We support the semiconductor sector with the following services:

Semiconductor Sector	High Technology R&D
Process Analysis	Unknown Substance Characterization
Substrate Analysis	Reverse Engineering
Quantitative Analysis	Failure Analysis
Contamination Analysis	

Because of the highly variable nature of these services for the semiconductor sector and for high technology R&D, please contact your project manager to discuss the project's objectives and the analytical capability needed.

Personnel, Facilities & Equipment

From top to bottom, Torrent has an experienced staff that handles *inter alia* day-to-day operations, sales, client services, administrative functions, and field efforts. Our philosophy and staff size allow us to offer personal service for every client. Simultaneously, our financial stability and continuous improvement gives us a wide range of analytical capability. Our highly qualified staff consists of degreed scientists with substantial environmental testing experience to support the technical requirements of our projects.

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Experience Summary

Table 3 is a summary of key personnel, technical qualifications, years of experience, and years of service with Torrent Laboratory.

Table 3

Name	Title	Education	Years of Experience	Years with Torrent
Mukesh Jani	Lab Director	BSC, Chemistry/MBA	26	23
Patti Sandrock	QA Director	BS, Microbiology	30	11
Belinda Vega	Operations Director	BS, Environmental Engineering	30	1
Emily Ragudo	Inorganic Dept. Manager	BS, Chemistry	30	10
T. To	Semi-volatile Dept. Manager	BS, Chemical Engineering	30	15
Badri Ali	Volatile Dept. Manager	BS, Chemistry, Microbiology, Immunology	26	3
Falguni Jani	Comptroller	AA, Accounting		

Organization Chart

Torrent's co-founders actively work at and manage Torrent. The organization is designed to be flat to facilitate communication and engender team spirit as we collaborate in support of our clients' diverse technical needs. Technical directors, each with at least 15 years of experience, manage the various operational areas. *Figure 1* is the organization chart showing how all staff support Torrent' services.

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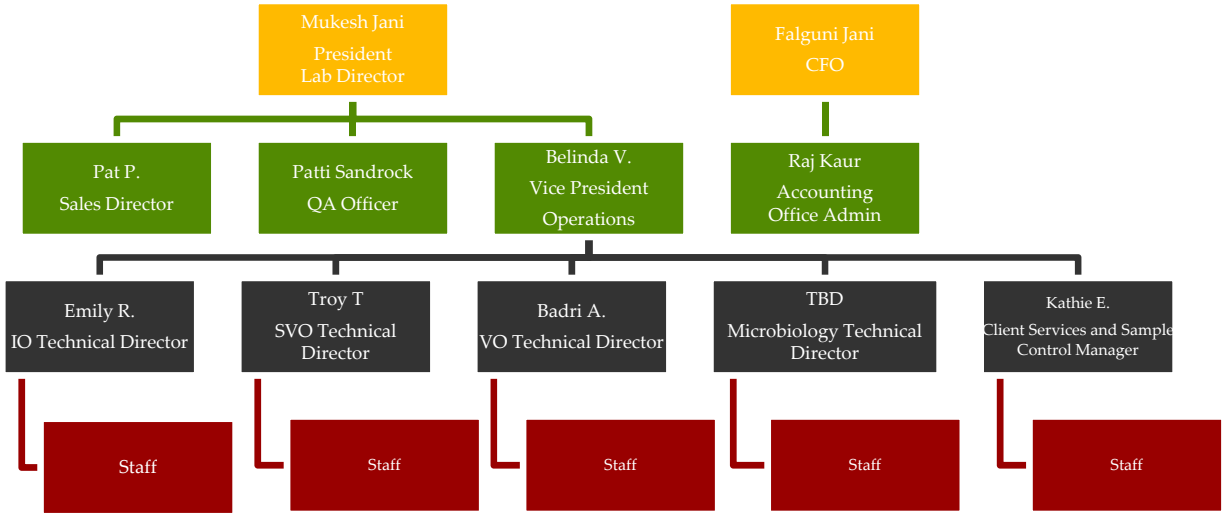
Figure 1



Facilities Floor Plan

Torrent headquarters are located in Milpitas, California. All of our testing services are conducted in modern, dedicated laboratories. The laboratories are comprised of four separate suites (477, 481, 483, 485, and 491). The facility has been designed to minimize potential cross-contamination and to provide the cleanest laboratory space possible for testing. Volatiles and air testing are conducted in Suite 481 and high resolution GC/MS in Suite 477. These procedures are intentionally separate from other laboratory operations that may potentially contribute to background levels. Semi-volatile, metals, and inorganics (sample preparation and analysis) are conducted in Suites 483 and 485. Suite 491 is dedicated to administrative support areas and biotechnological services. See the facilities diagram in *Figure 2* for the layout of our administrative functions and testing operations.

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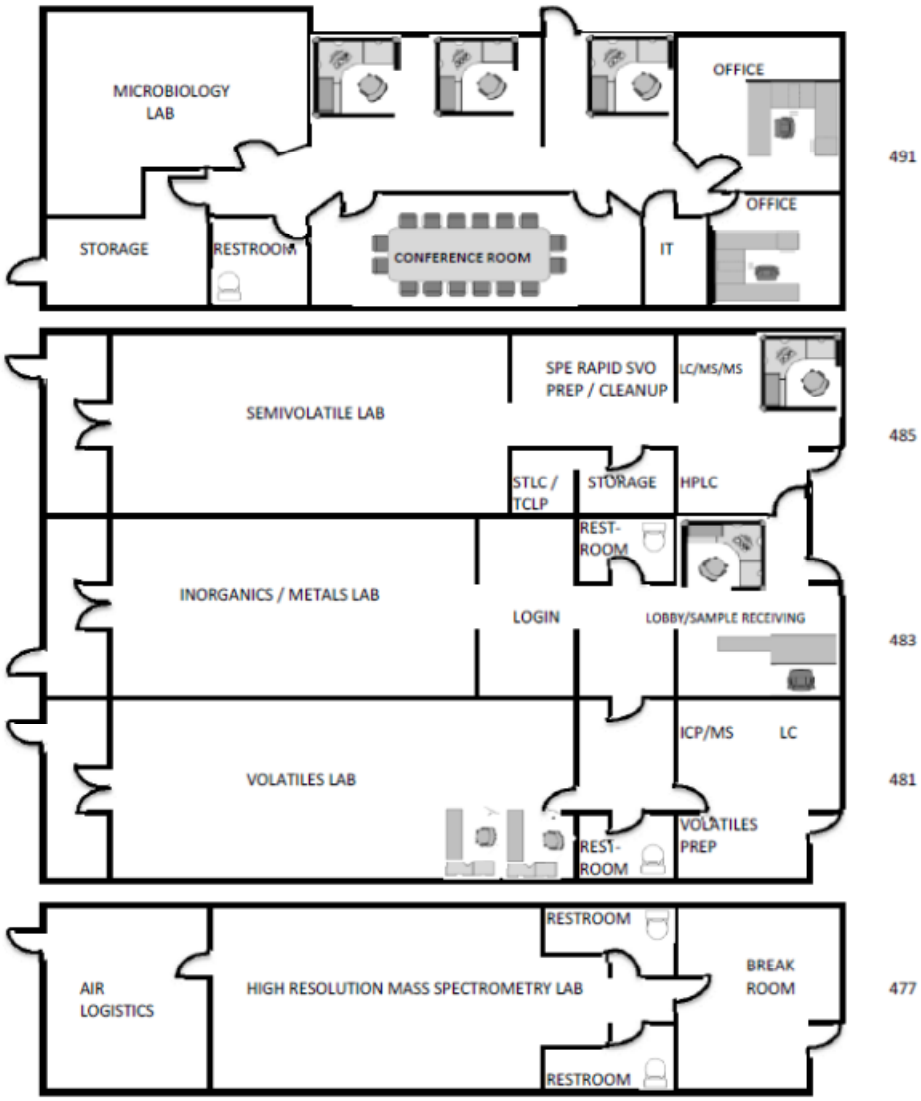
Figure 2



Equipment

Torrent makes significant investments to assure that our equipment is state-of-the-art and newer than the industry standards. Part and parcel of our instrument purchasing strategy is to build-in redundancies to assure reliable and timely report delivery. *Torrent has also invested heavily in its Laboratory Information Management System (LIMS).* That investment assures that our reports are delivered in a timely manner and in formats that are customized for the data's intended purpose. See *Table 4* below for a complete listing of Torrent Laboratory's major instrumentation.

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Table 4

Name	Brand	Model	Date Purchased / Date Placed in Service
1-High Res GC/MS	Waters	Autospec Premier	2015/2015
1-LC/MS/MS	Shimadzu	8030	2011/2011
1-Total Rapid Prep System	FMS	Econoprep NC	2015/2015
6 - Gas Chromatograph	Varian	CP-3800 GC	2000-2006
2 – GC/MS	Varian	Saturn 2200	2003 & 2006 / 2003 & 2006
2 – GC/MS	Varian	Saturn 2000	2003 / 2003
2- GC/MS	Shimadzu	QP 2010 Plus	2008/2008, 2010/2010
Oxidation Catalyst Furnace	Thermo Electron Corp	Lindberg/Blue M	2006 / 2006
12 Position Summa Canister Cleaner	Despatch	Custom Made	2006 / 2006
HPLC w/UV-VIS Detector	Shimadzu	SPD-20AV	2009/2009
HPLC w/LC Fluorescence Detector	Shimadzu	RF-10A XL	2009/2009
Ion Chromatograph	Dionex	IC25	2003 / 2003
Flashpoint Closed Cup		Rapid Tester	2001 / 2001
3-51 Position Autosamplers	Varian	Archon	2003-2006 / 2003-2006
16 Position Air Autosampler	Teledyne/Tekmar	Autocan (custom)	2006 / 2006
2- Purge & Trap Concentrators	Tekmar	3000	2003-2006 / 2003-2006
Purge & Trap Concentrator	Teledyne/Tekmar	Velocity	2003
2- IC Autosamplers	Dionex	AS40	2003 & 2005 / 2003 & 2005
IC Absorbance Detector	Dionex	AD 25	2005 / 2005
IC Isocratic Pump	Dionex	IP25	2003 / 2003
IC Pneumatic Controller	Dionex	PC 10	2003 / 2003
Reverse Osmosis H2O Purifier	Purelab	Option Q	2006
ICP–AES Sequential	Varian	Liberty AX	1999 / 1999
ICP-OES Simultaneous	PerkinElmer	Optima 5300 OV	2004 / 2004
ICP-MS	Perkin Elmer	ELAN DRC	2008
ICP 52 Pos Autosampler	Varian	SPS-5	1999 / 1999
ICP 120 Pos. Autosampler	PerkinElmer	AS 93 Plus	2004 / 2004
2-Midi-Distillation Systems	LabCrest	Cyanide/Phenol	1999 & 2006 / 1999 & 2006
CVAA Mercury Analyzer	PerkinElmer	FIMS 400	2006 / 2006
Mercury 106 Pos. Autosampler	PerkinElmer	AS 90	2006 / 2006

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Analytical Balance	Mettler	AB204	1999 / 1999
Analytical Balance	Mettler	AB104-S	1999 / 1999
pH/DO/ISE/Conductivity Meter	VWR	Symphony SB90 M5	2007 / 2007
Conductivity/TDS Meter	HACH	NA	2001 / 2001
Spectrophotometer	HACH	DR2000	2001 / 2001
TOC Water Analyzer w/68 Position Autosampler	Shimadzu	TOC-V CSH	2003 / 2003
TC/IC Soil Analyzer	Shimadzu	SSM-5000A	2003 / 2003
Mechanical Convection Oven	Precision Scientific	25EM	1999 / 1999
FT-IR	PerkinElmer	Spectrum 100	2007 / 2007
GCMS	Shimadzu	OP 2010	2003 / 2003
4 – Gas Chromatographs	Shimadzu	GC 2010	2001-2005 / 2001-2005
4 – 150 Pos. Autosamplers	Shimadzu	AOC-20S	2001-2005 / 2001-2005
2 – 99 Pos. Dual Tower Autosamplers	Varian	8400	2001 / 2001
GPC Auto Prep w/UV Detector and 30 pos. autoautosampler	O-I Analytical	NA	2006 / 2006
Solvent Extractor w/26 pos. autosampler	Dionex	ASE2000	2005 / 2005
Solid Phase Extractor	CPI	SPE 6	2003 / 2003
Pressure Solvent Extractor – 6 Position	Applied Separations	PSE 6	2006 / 2006
2-Nitrogen Evaporators – 6 position	Caliper Life Sciences	Turbo Vap II	2003 & 2005 / 2003 & 2005
Nitrogen Evaporator – 6 Position	Organomation Assoc.	N-EVAP III	1999 / 1999
Nitrogen Evaporator – 24 Position	Caliper Life Sciences	Turbo Vap LV	2005 / 2005
Muffle Furnace	Barnstead/Thermolyne	1400	2007

Reports

Torrent offers custom reporting and document management capabilities tailored to each customer's specific requirements for laboratory analysis. Torrent typically sends your report by email in PDF format. Fax copies or hard copies are available upon request for Chain of Custody (CoC) documents; otherwise, a PDF will be submitted with the final report. Torrent's approach to providing reliable results culminates in the final report review where all reports are subjected to management and quality assurance scrutiny in a holistic manner. We strive to ensure the data makes sense from every aspect of the project before reporting.

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A standard report includes the following:

- A signed cover page describing the work received and number of samples involved
- A case narrative describing events outside of normal procedures during the sample receiving, preparation, analysis and reporting stages or special instructions followed at the client's request
- A data section, including a summary of detectable results and detailed results for all parameters tested
- The sample IDs, detection limits, QC Batch numbers and any comments specific to the samples
- A Quality Control section that demonstrates Torrent's adherence to the control criteria used in determining the result reported
- A copy of the Login Summary Report sent to the client after login to confirm the analyses and turnaround time requested
- A copy of the Chain of Custody (CoC) received with the samples
- Any correspondence requesting action to be taken outside of the information found on the original CoC.

Torrent can tailor reports to reflect any reporting requirements, including project specific detection limits and/or QC reporting requirements. Our clients are instructed to contact the project management team with specific needs, and the project manager will collect all the information required to provide the report format required. Some areas we are routinely requested to customize are:

- Reporting in multiple units
- Customized (non-standard) compounds lists
- Expanded quality control – Level II through IV reporting
- Chromatograms supporting report results – included or sent separately
- Digitally signed electronic reports – hardcopies available upon request
- Reports archived in secure files – available whenever needed
- Reporting to Geotracker EDF – please provide Global IDs and field point names
- Controlled document status, not for release to 3rd parties without customer approval

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Torrent supports Electronic Data Deliverables (EDDs) and Electronic Data Formats (EDFs) for customer convenience and cost savings. Our electronic deliverables reports can be customized to meet a variety of specific criteria. EDD/EDF templates are available through our LIMS including COELT, EQuIS (comma and text delimited), and CalTrans formats. Existing formats can be modified to meet client requirements or, when needed, new formats can be developed. EDDs and EDFs are included with the delivery of our customer's report.

All associated analytical data and electronic reports are maintained for a minimum five-year period and are stored on-premise as well as at a secondary off-site location in order to facilitate prompt data retrieval when requested.

Project Experience Summaries

Torrent continuously demonstrates the ability to manage multidisciplinary teams of environmental chemists to meet the needs of our clients. We have performed services for a diverse range of clients in the private and public sectors. Torrent has a proven record of accomplishment for providing state-certified environmental analyses. The following table is a snapshot of some of our projects we've handled for various clients.

Table 5

Type of Project	**Description**	
Air Analysis – Soil Vapor/Ambient	Name and Location	Former Ordinance Facility; Hollister, CA
	Client	East Bay Consulting Firm
	Completion Date	Ongoing (Quarterly Monitoring)
	Torrent's Responsibilities	Torrent is responsible for both soil vapor and ambient air analysis across a variety of methods including TO-15, TO-3, TO-10A, ASTM D 1946, and NMOC
Air Analysis – Industrial Hygiene	Name and Location	Various locations
	Client	South Bay Industrial Hygiene Sampling Firm
	Completion Date	Ongoing
	Torrent's Responsibilities	Torrent Laboratory is responsible for analysis of air samples collected on various media using NIOSH/ASTM/EPA methodologies. Media includes Summa Canisters, Tedlar Bags, sorbent tubes, and filter cassettes.

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		Routine testing includes NIOSH 0500, 0600, 1550, 7303, 7605, ASTM D 1945, D 1946, EPA TO-10A, TO-13, TO-14A, and TO-15
Air Analysis – Soil Vapor Monitoring	Name and Location	Various locations
	Client	San Francisco Consulting Firms
	Completion Date	Ongoing
	Torrent's Responsibilities	Torrent Laboratory is responsible for soil vapor monitoring projects for both high-level contamination sites, as well as, compliance monitoring of fully remediated sites. Sites include former dry cleaning facilities, fuel stations, industrial complexes, and landfill locations. Samples are received in Tedlar Bags, Summa Canisters, sorbent tubes, and filter cassettes. Testing is for volatiles, semi-volatiles, and metals, including low level Hexavalent Chromium in air (NIOSH 7605)
Testing of Soil – Multi Incremental	Name and Location	Honolulu, HI
	Client	Consulting Firm
	Completion Date	2010
	Torrent's Responsibilities	Processed over 1000+ samples for Multi Incremental, Pesticides, TPH-D, Metals.
Testing of Ground Water Monitoring	Name and Location	South San Francisco Bay Area
	Client	URS
	Completion Date	Ongoing
	Torrent's Responsibilities	The project involves quarterly monitoring of ground water for Perchlorates, Hexavalent Chromium, VOCs, Nutrients, Explosives, TPH-diesel.
Hazardous Waste Characterization	Name and Location	Hazardous Waste Characterization; Santa Clara, CA
	Client	Applied Materials
	Completion Date	Ongoing
	Torrent's Responsibilities	Torrent Laboratory performed a company wide hazardous waste characterization of different matrices and undertook total analytical management. The list below describes the major analytical tests performed with respect to the hazardous waste characterization. The primary matrices under the investigation were wipes taken from different manufacturing processes and coolant water samples from different manufacturing facilities. The

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		major tests performed under this project were the following: Corrosivity, TCLP, VOC's, SVOC's, Fish Bioassay, Metals, plus other site-specific tests
Extensive Site Investigations	Name and Location	Various locations
	Client	PG&E
	Completion Date	Ongoing
	Torrent's Responsibilities	Torrent was an on call lab supporting PG&E in obtaining results to determine whether specific sites were contaminated. Torrent generated results within a few-hour-turnaround time. Investigations for the various projects have included the following analysis: TPH-D w/Silica Gel Clean Up, VOC's, PCB's, Metals, and Pesticides
Contamination Investigation	Name and Location	San Jose
	Client	VTA
	Completion Date	Ongoing
	Torrent's Responsibilities	Torrent Laboratory is responsible for hazardous waste characterization at different VTA locations. The list below describes the major analytical tests performed with respect to soil & groundwater testing. The major tests performed under this project are as follows: Corrosivity, TCLP, STLC, VOC's, SVOC's, TPHG, TPHD, and Metals
Hazardous Waste Characterizations	Name and Location	San Jose
	Client	VTA
	Completion Date	Ongoing
	Torrent's Responsibilities	Torrent Laboratory is responsible for hazardous waste characterization at different VTA locations. The list below describes the major analytical tests performed with respect to soil & groundwater samples. The major tests performed on this project are as follows: Corrosivity, TCLP, STLC, VOC's, SVOC's, TPHG, TPHD, and Metals

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