

Operationalizing Allotrope at Scale

An Anzo Platform Proof-of-Concept (PoC)

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Allotrope US Connect, 2019-Oct-08
Genentech, South San Francisco CA, USA

2019 US Connect – Public Session Presentation

Operationalizing Allotrope at Scale

An introductory description of the approach, outcomes and business benefits of blending the Allotrope Foundation Ontology (AFO) with 'big data' volumes of Osmolality instance data (leaf nodes) complete with sample exploratory analytics

Agenda

- Proof-of-concept (PoC) Objective
- Cambridge Semantics' Anzo Platform Overview
- Osmolality PoC Approach
 - Allotrope Foundation Ontology (AFO) View
 - Synthetic Semantic Osmolality Data Generation (Leaf Nodes)
- Exploratory Analytics and Data-on-demand
- Conclusions & Next Steps
- Acknowledgements

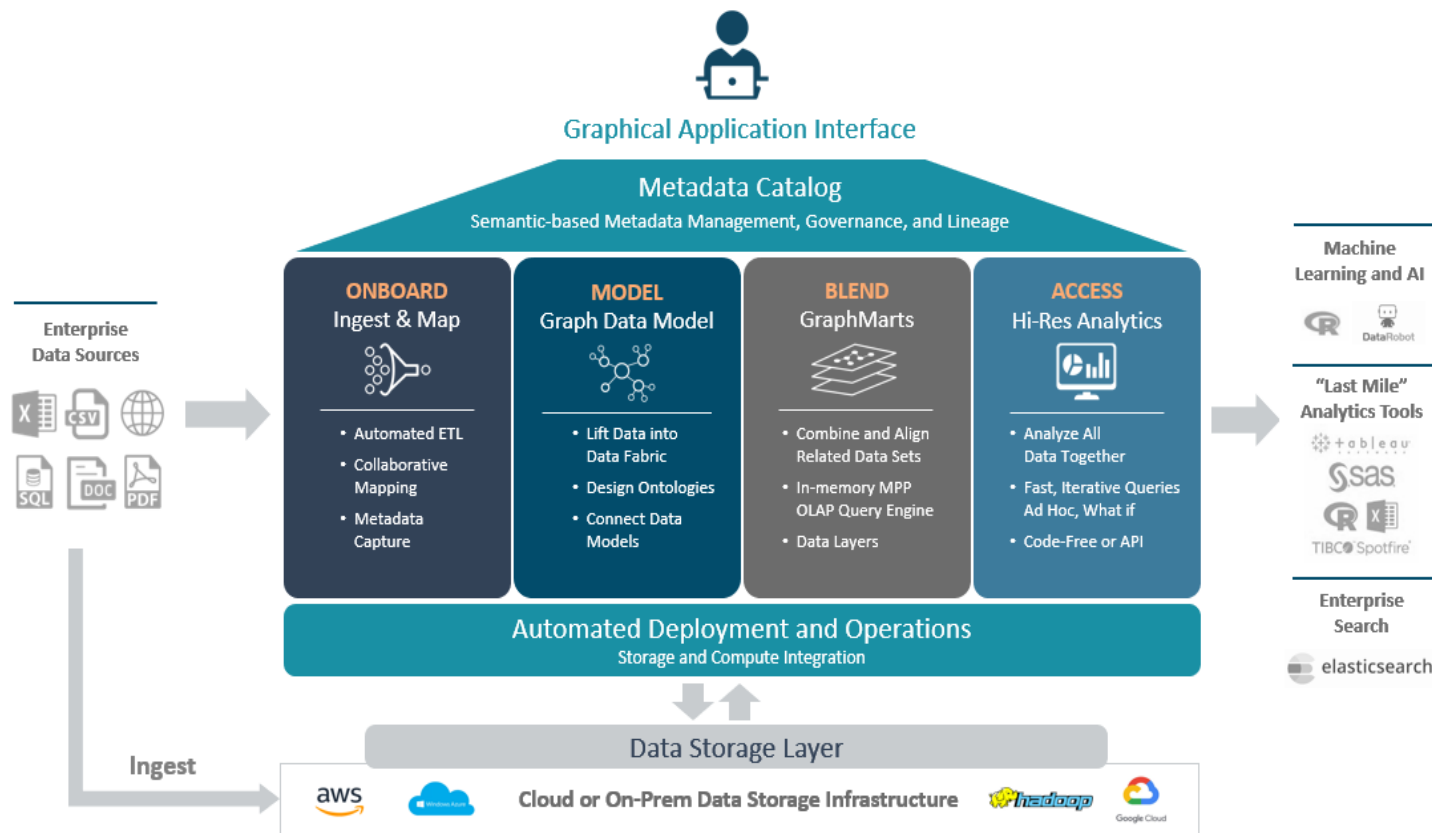
The Allotrope Community Today



ANZO IN THE DATA FABRIC ARCHITECTURE



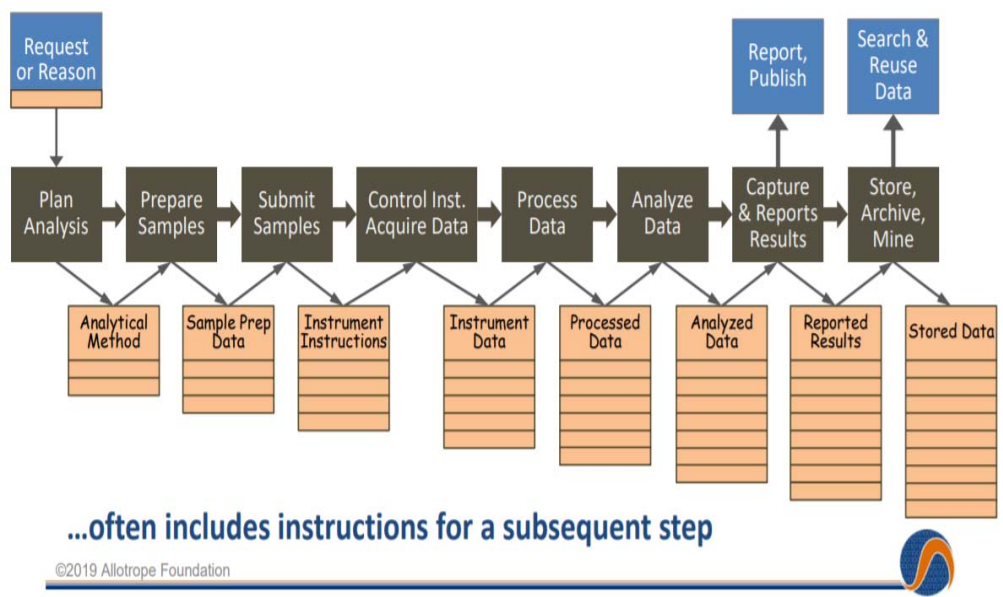
Cambridge Semantics' Anzo Platform



Anzo Technology Stack

- Source
 - Structured (RDBMS)
 - Unstructured (text)
- Spark - transformations
- RDF
- RDFS
- OWL
- SPARQL
- Odata – data-on-demand
 - Spotfire
 - Tableau
 - R
 - SAS
 - Python
 - Machine Learning platforms

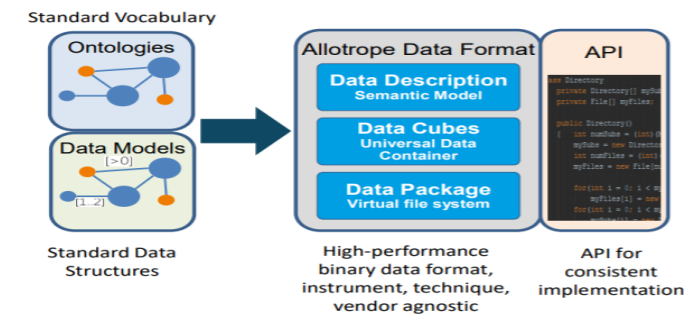
Contextual meta data accumulates along every step of a workflow...



Driving Outcomes Through Adoption of the Framework for Standardizing Data & Context

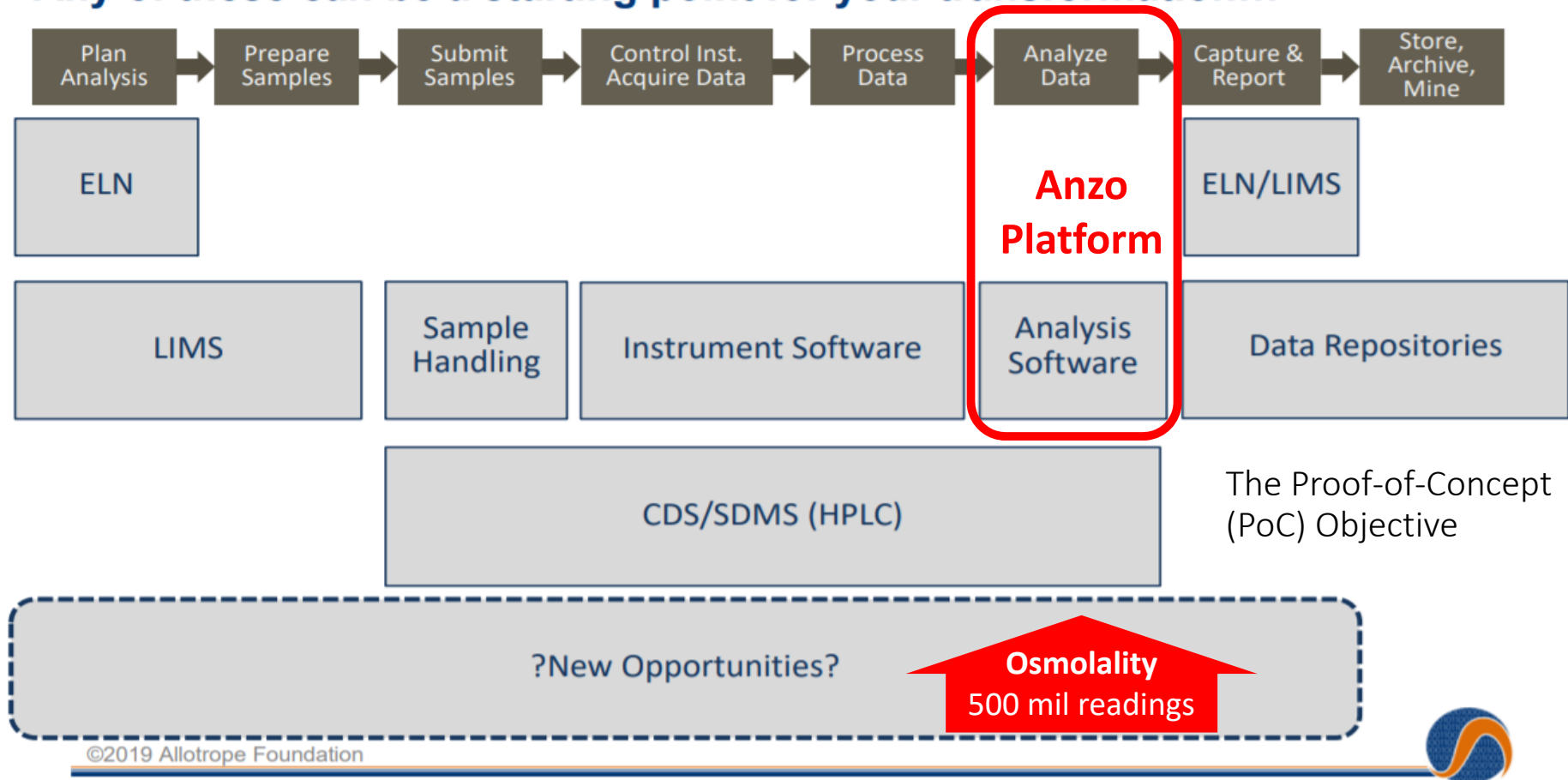
Allotrope Connect, April 9, 2019
Dassault Systemes, Vélizy-Villacoublay, France

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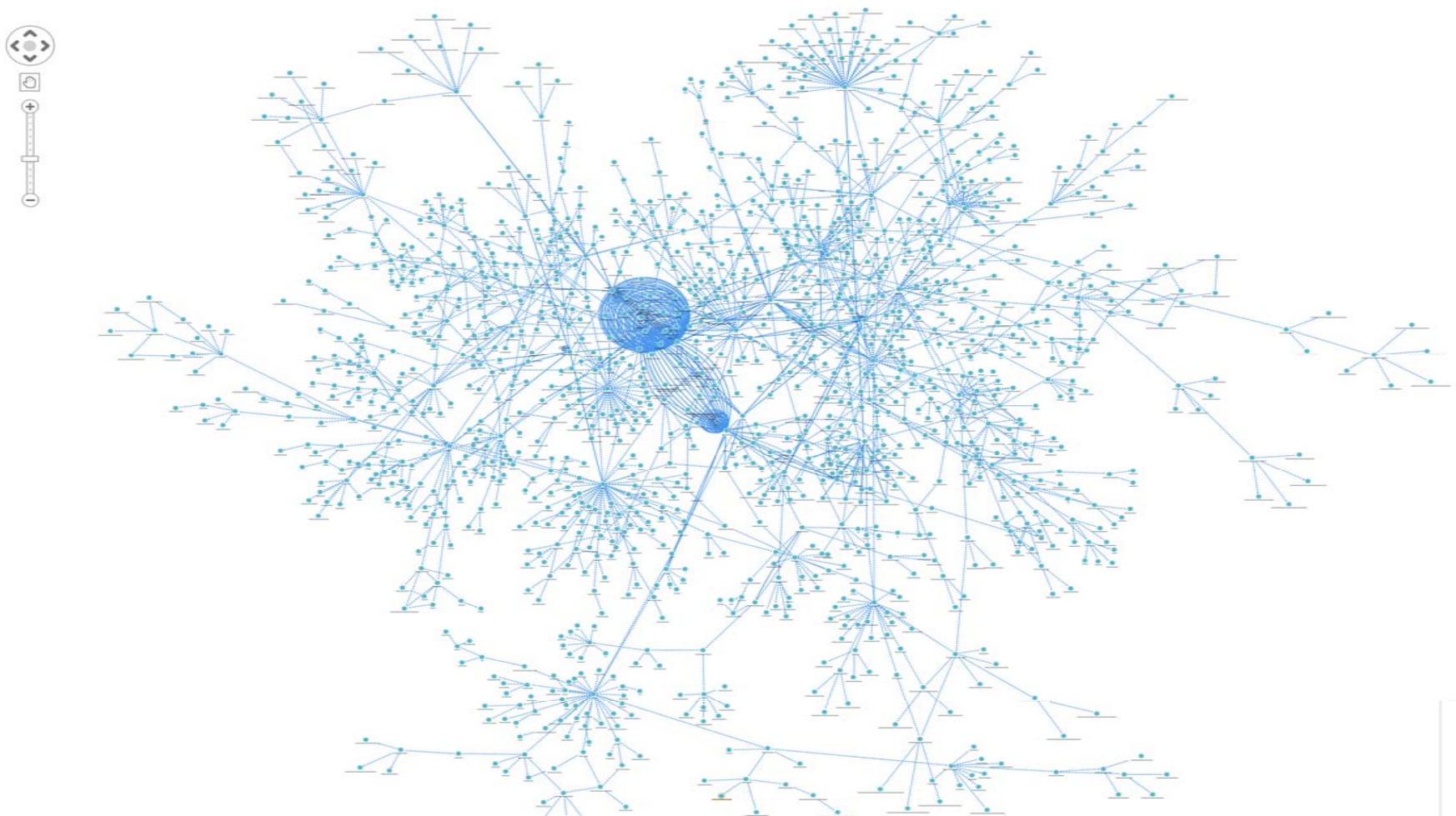


Source: *Driving Outcomes through Adoption of the Framework for Standardizing Data and Context*, Allotrope Connect, April 9, 2019, by Dana Vanderwall

Any of these can be a starting point for your transformation...



Allotrope Foundation Ontology (AFO)



Osmolality Data in the Allotrope Foundation Ontology (AFO)

Filter menu items

Home
Onboard
Model
Blend
Datasets
Graphmarts
Access
Provenance
Administration

MODEL / OSMOLALITY

MANAGE WORKING SET

osmolality

Allotrope Merged
entity
continuant
generically depend...
information con...
facet
quantity f...
osmol...
specifically depend...
quality
molecular qu...
osmolality

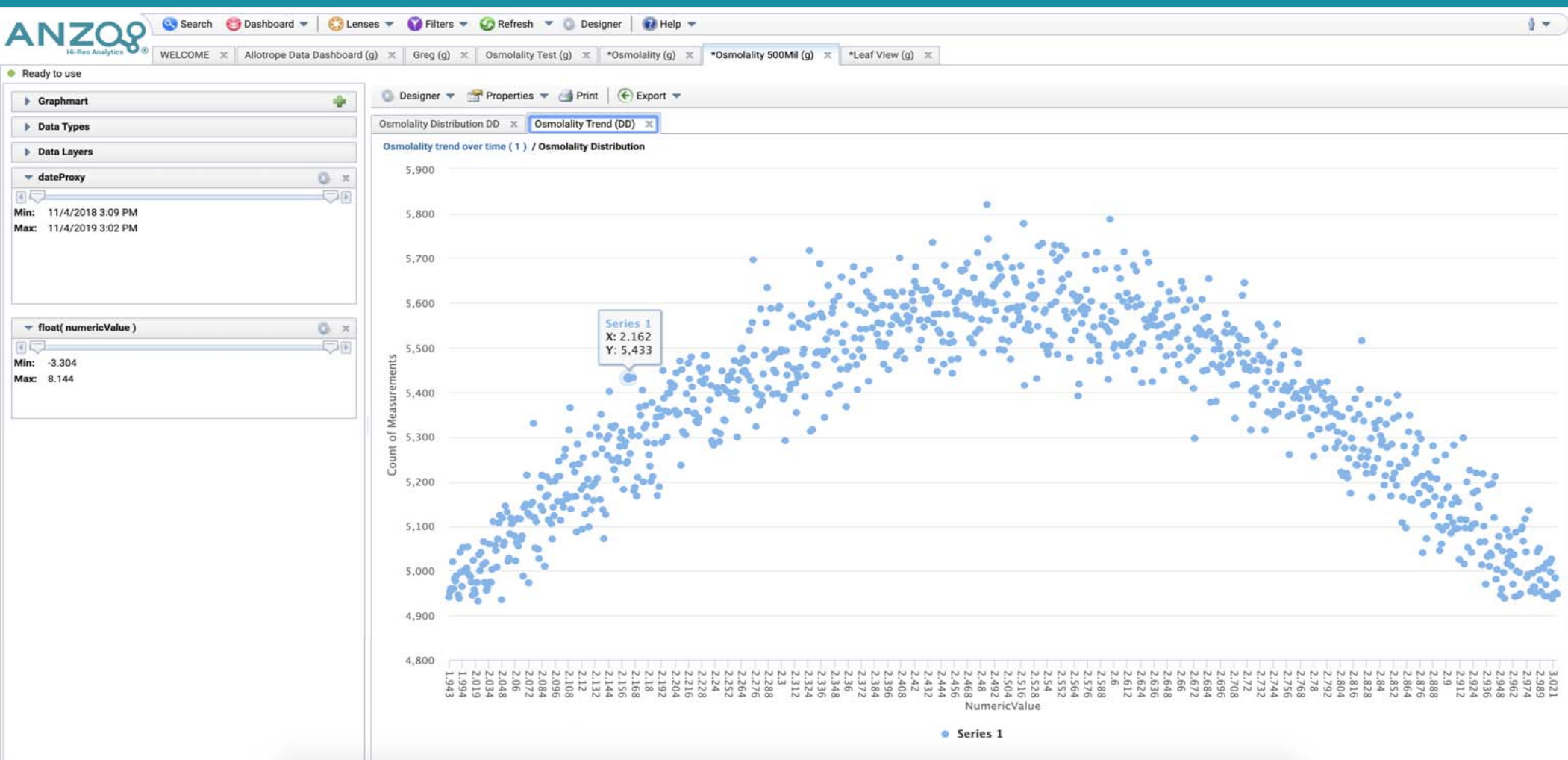
osmolality

Initial Version

EDIT VIEW COMMENTS

Date_time	SampleID	Osmolality	Units (qudt)
1/3/2019 12:30pm	100188843	2.162	Osmoles/liter
2/14/2019 9:37am	100223450	3.223	Osmoles/liter
11/23/2018 3:44pm	100044450	4.221	Osmoles/liter
6/23/2019 8:53am	100563455	1.935	Osmoles/liter
o o o			

Osmolality Data Distribution for Nov 2018 (drill-down by month)



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PoC Acknowledgments:

Don Rolph – Amgen

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Tim Reyes – Cambridge Semantics

Greg West – Cambridge Semantics

Barbara Petrocelli – Cambridge Semantics

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