

# Surface Sample

```

classDiagram
    class Dataset["Dataset (SCHEMA:Dataset)"]
    class Anumber["Anumber (SDO:Report)"]
    class SurfaceSample["SurfaceSample + observableProperty (SOSA:Observation)"]
    class Sampled["Sampled (Site) (EX:Site)"]
    class SampledType["SampledType (EX:SampleType)"]
    class CompanySampled["CompanySampled (XSD:string)"]
    class SurfaceSampledType["SurfaceSampledType (EX:SampleType)"]
    class SurfaceSampled["SurfaceSampled (XSD:string)"]
    class ObservableProperty["ObservableProperty (Right side) (EX:Units)"]
    class Value["Value (XSD:float)"]
    class MRTName["MRTName (XSD:string)"]
    class MRTField["MRTField (PROF:ResourceDescriptor)"]
    class POINT["POINT(latitude longitude) (GEO:WktLiteral)"]
    class SiteType["Site Type (Surface or Drilling) (EX:SiteType)"]
    class Role["Role ('Company') (PROV:Role)"]
    class ProvAgent["PROV:Agent"]
    class ProvAttribution["PROV:Attribution"]
    class Company["Company (XSD:string)"]

    Dataset --> SurfaceSample : sosa:hasPart
    Anumber --> SurfaceSample : sosa:identifier
    SurfaceSample --> ObservableProperty : sosa:observedProperty
    SurfaceSample --> Sampled : sosa:hasFeatureOfInterest
    SurfaceSample --> SOSAResult["SOSA:Result"] : sosa:hasResult
    SOSAResult --> ObservableProperty : qudt:unit
    SOSAResult --> Value : rdf:value
    Sampled --> SampledType : EX:originatesFrom
    Sampled --> ProvAttribution : prov:qualifiedAttribution
    SampledType --> SurfaceSampledType : Schema:additionalType
    SampledType --> CompanySampled : Schema:identifier
    SampledType --> SurfaceSampled : Schema:identifier
    ProvAttribution --> Role : prov:hadRole
    ProvAttribution --> ProvAgent : prov:agent
    ProvAgent --> Company : Schema:name
    MRTName --> MRTField : Schema:name
    MRTField --> POINT : PROF:hasResource
    POINT --> SiteType : geo:hasGeometry
    SiteType --> ProvAgent : Schema:additionalType
  
```

# Drillhole GeoChemistry

The diagram illustrates an ontology for Drillhole GeoChemistry, showing relationships between various entities and their properties. Key components include:

- Role ("Company") (PROV:Role)**: A central entity representing the company.
- Company (PROV:Agent)**: A specific instance of a company.
- Dataset (SCHEMA:Dataset)**: A collection of data.
- HoleType (EX:HoleType)**: A type of hole, such as a surface or drillhole.
- Holeid (EX:DrillHole)**: A specific hole identifier.
- Sampled (SOSA:Sample)**: A sample taken from a hole.
- CompanySampled (XSD:string)**: A specific sample from a company.
- Sampled (XSD:string)**: A specific sample.
- Distance (SCHEMA:Distance)**: A measurement of distance.
- Azimuth (XSD:float)**: A measurement of azimuth.
- Dip (XSD:float)**: A measurement of dip.
- Shape (EX:location)**: A measurement of shape.
- FromDepth (XSD:float)**: A measurement of depth from the surface.
- ToDepth (XSD:float)**: A measurement of depth to the bottom.
- Units (EX:Units)**: A measurement of units.

Key relationships and properties shown:

- prov:agent**: Connects **Role** to **Company**.
- geo:hasGeometry**: Connects **Company** to **Holeid**.
- sosa:isSampleOf**: Connects **Holeid** to **Sampled**.
- sosa:hasResult**: Connects **Sampled** to **Sampled (SOSA:Result)**.
- EX:belongsToDataset**: Connects **Dataset** to **Sampled**.
- EX:hasNumber**: Connects **Sampled** to **Number (SDO:Report)**.
- Schema:additionalType**: Connects **Sampled** to **HoleType**.
- Schema:identifier**: Connects **Sampled** to **CompanySampled**.
- Schema:depth**: Connects **Sampled** to **Distance**.
- Bore:hasAzimuth**: Connects **Sampled** to **Azimuth**.
- Bore:hasDip**: Connects **Sampled** to **Dip**.
- Schema:location**: Connects **Sampled** to **Shape**.
- EX:hasBeginning**: Connects **Sampled** to **FromDepth**.
- EX:hasEnd**: Connects **Sampled** to **ToDepth**.
- QUDT:units**: Connects **Sampled** to **Units**.