



Selkirk

A New Contract Manufacturer for Injectable Drug Product



 Selkirk
Spokane, WA



Built for Quality, Reliability, & Speed



Pledge: We make your success faster and certain!

Manufacturing Capabilities

Our Facility

- 115,000 sq ft Plant 1
- Modular cleanrooms
- Unidirectional flow for personnel, components, equipment and products
- 15,000 sq ft of controlled temperature and refrigerated storage.
- Frozen storage capacity (-20°C & -80°C)
- Dedicated/disposable filling systems
- Annex 1 compliance

Line 1

- Bausch and Strobel VarioSys filling system with SKAN isolators with integrated vial rinser and depyrogenation tunnel
- 1 – 400 L Capacity
- Bulk vial filling - 0.5 mL - 50 mL
- Vial sizes: 2R – 100R



- Up to 3,600 vials/hour
- Advanced Fill: 99%+ recovery
- Minimal line loss (as low as 100mL)
- Nitrogen headspace capability

Manufacturing Capabilities

Line 1 (Con't)

- Vaporized hydrogen peroxide (VHP) decontamination
- In-line 100% non-destructive weight checks
- Rotary piston and peristaltic pump filling options
- Compatible with Ready to Use (RTU) stoppers and overseals
- Annex 1 compliant
- Bulk packaging



Inspection

- 100% Visual Inspection
- Illumination intensity of 2,000 – 3,750 lux
- In-house Defect Kits



PIP Offices

- 3 dedicated offices
- Camera visibility



Line 1 Manufacturing Floor



Blue – Analytical Labs
Dark Green – CNC
Light Green – Grade C
Grey – Grade D
Orange – Grade A (Filler)

Bausch and Strobel VarioSys filling system

- 1 Vial Rinser
- 2 Depyrogenation tunnel
- 3 Filler, Stopper, Oversealer
- 4 Tray-off Isolator

Analytical Capabilities

Services

- Method Transfer & Compendial Method Verification
- Raw Material Testing (USP/NF, EP, JP)
- API, In-process & Filled Vial Testing
- Qualified External Laboratories for Outsourced Testing



Instrumentation

- Chromatography
 - Waters Arc HPLC Systems with UV/Vis detection
 - Agilent 8860 GC with FID & TCD
 - Waters Empower Chromatography Data System
- Spectroscopy
 - Mettler Toledo UV7
 - Thermo Fisher Nicolet FT-IR
- Additional Instruments
 - Mettler Toledo SevenExcellence pH/Conductivity Meters and XPR Analytical Balances
 - Sievers M9 TOC & Conductivity Analyzer
 - Beckman Coulter HIAC Subvisible Particulate Analyzer
 - Precisions Systems Osmometer

Microbial Capabilities

Test

- Endotoxin Testing - Kinetic Chromogenic
- Sterility Method Suitability (B&F)
- Bioburden Method Suitability
- Microbial Examination (Bioburden)
- Microbial Identification
- Microbial limits (Excipients/Raw Materials)
- Isolator - Sterility Testing

Method

- USP 85
- USP 71
- USP 61/62
- USP 61/62
- USP 1113
- USP 61/62
- USP 71

Systems & Equipment

- MODA-EM
- 3P Enterprise Automated Plate Readers
- VitekMS Prime Microbial identification system
- Sievers Eclipse Bacterial Endotoxins Testing (BET) Platform
- Milliflex Oasis
- SKAN Spectra Sterility Isolator



Project Mgmt, Tech Transfer, and Warehouse

Project Management

- Qualified Project Managers with extensive experience
- Single point of contact

Technology Transfer

- Multi-disciplinary product transfer teams
- Facility and transfer processes designed to enhance client input and oversight
- Highly experienced subject matter experts dedicated to every project

Warehouse

- 15,000 sq ft of controlled temperature and refrigerated storage
- Frozen storage capacity (-20°C and -80°C)
- Best-in-class Manufacturing Monitoring System (MMS)
- Electronic Enterprise Resource Planning (ERP)
- Dedicated receiving and shipping departments



Technology Transfer

Evaluation

- Client transfer package
- Facility Fit
- Safety evaluation

Process Development

- Create efficient and consistent processes
- Document creation including batch records, SOPs, and specifications
- Source new materials
- Training
- Engineering batches

Process Validation

- Develop validation strategy and plan
- Define acceptance criteria
- Execute validation studies
- PPQ batches
- Confirm consistent process, quality, safety
- Qualify any new equipment

Continuous Improvement

- Monitor transferred process to ensure compliance
- Look for opportunities make improvements

Pharma 4.0

Digitized Processes

- ✓ TrackWise (dev mgmt)
- ✓ ABS recipe backup
- TULIP (logbooks)
- P2P (PO process)
- Connected 3P (plate read)
- OT file copy (machine batch info)

Smart Factory

- ✓ BMS (building monitoring)
- ✓ MMS (MFG monitoring)
- ✓ BMRAM (asset & calib mgmt)
- ✓ Card MGMT / Uni-flow
- ✓ Connected equipment
- ✓ Connected lab
- Batch record (form)
- LabX

Big Data

- DAS Pi (historian)

- ✓ Complete
- In Process

Business Intelligence

- Client Dashboards
- Knowledge Mgmt
- Metrics and KPIs

Selkirk's start of Pharma 4.0 through 2024

Regulatory Compliance

- ✓ DOT (DMS)
- ✓ MODA-EM (environ monitor)
- ✓ QAD (inventory control)
- ✓ QAD (prod orders)
- ✓ REDICA (reg surveillance)

Data Integration

- ✓ BOOMI (ESB)
- QAD<> BMRAM

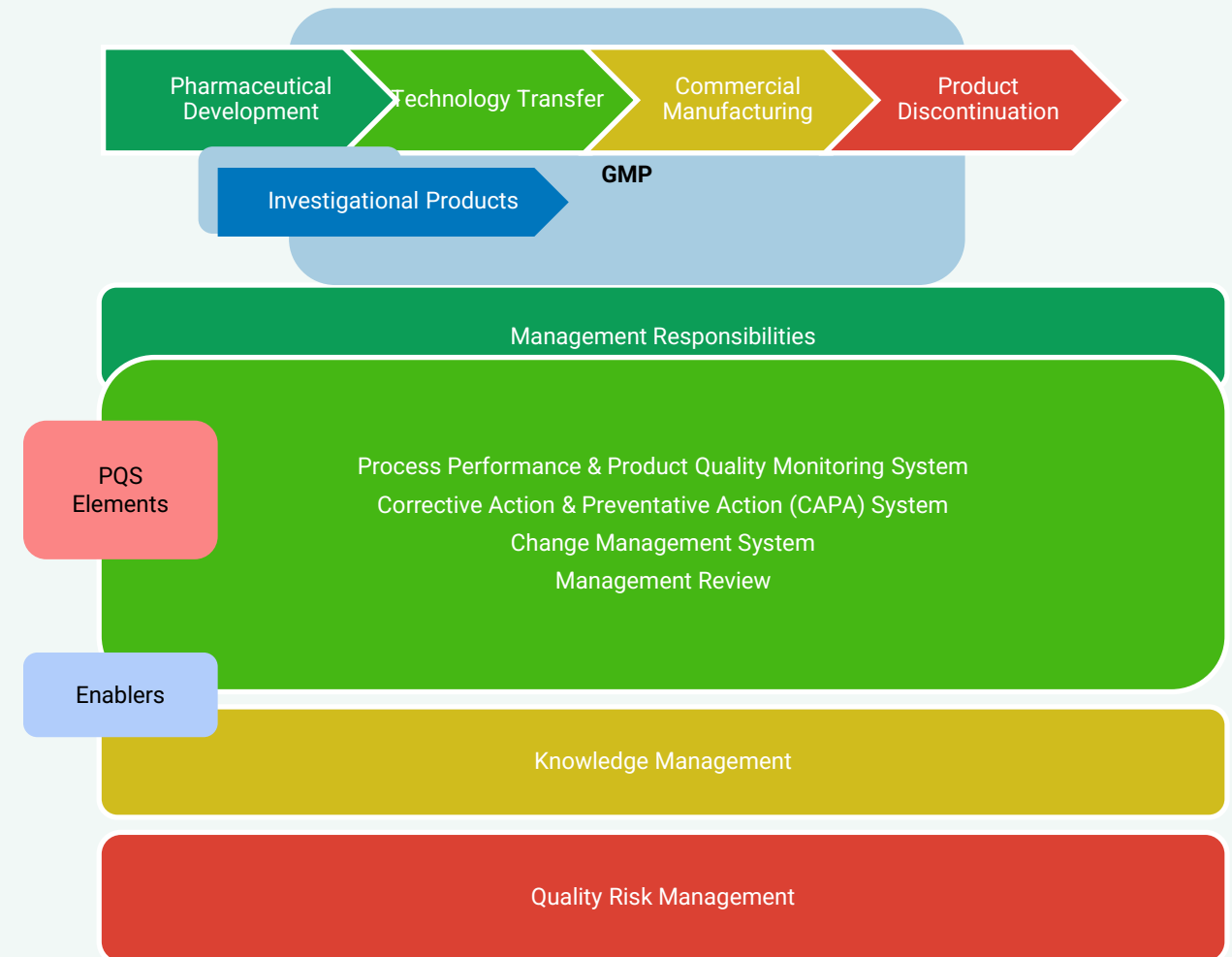
Infrastructure

- ✓ IT / OT networks
- ✓ Backup verification / data recovery
- ✓ Penetration testing
- ✓ Server architecture
- ✓ DUO MFA

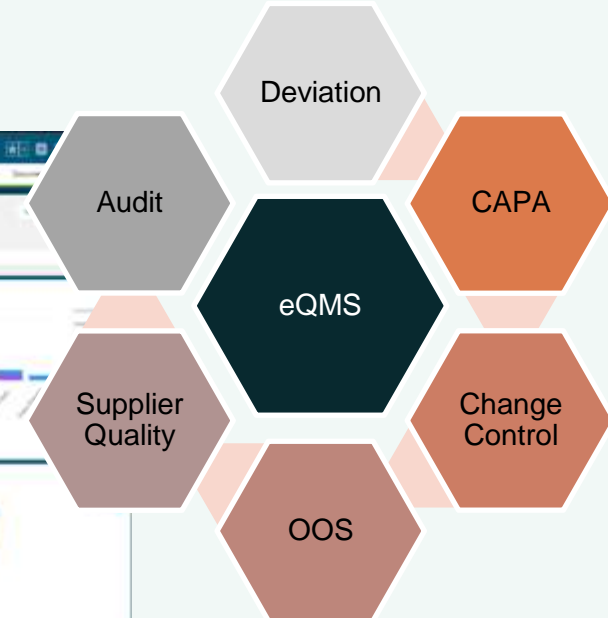
Quality System

- Foundational programs and systems based on ISO 9001: 2015 requirements and ICH Q10 /Q9.
- The QMS is not based on department roles but on cross-departmental systems and processes encompassing departmental roles.
- Selkirk defines, maintains, plans, and staffs an organization that can support the Quality Management System to meet all product and lifecycle phase-appropriate needs and regulatory requirements.
- Selkirk has self-identified programs that require updates and will continuously update procedures to ensure compliance and robustness.

ICH Q10



eQMS



- *DOT Compliance Suite is a pure cloud Quality Management System being used for eDMS.*
- *The Dot Compliance solution is compliant with industry standards including 21 CFR Part 11 and the EU Annex-11*

- *TrackWise Digital is a cloud based Electronic Quality Management System.*
- *Compliant with industry standards including 21 CFR Part 11 and the EU Annex-11*

Compliance

- **FDA Establishment Registration**

FEI # 3015893397

- **Unique Entity ID**

UEI # SF7UX8ZYKQW8

- **State Licensing**

WA & 15 Non-Resident States

- **FDA Bulk Drug Listings**

Selkirk Labeler Code

- **FDA Listed Drug Amount Reporting**

Coronavirus Aid, Relief, and
Economic Security Act

Per Client Demand:

- Small Business Registration, Alcohol, Controlled Substances, etc.

Regulatory Operations

- **FDA Pre-Operational Review**

Pre-Construction (July 2020)

- **FDA Facility Drug Master File**

- **eCTD Publishing Software**

- **FDA Electronic Submissions Gateway**

- **Baseline & Mock Inspections**

- **CMC Review**

Per Client Demand:

- CMC Authoring
- FDA GDUFA Self-Identification and CMO Facility Fee
- EU Site Master File

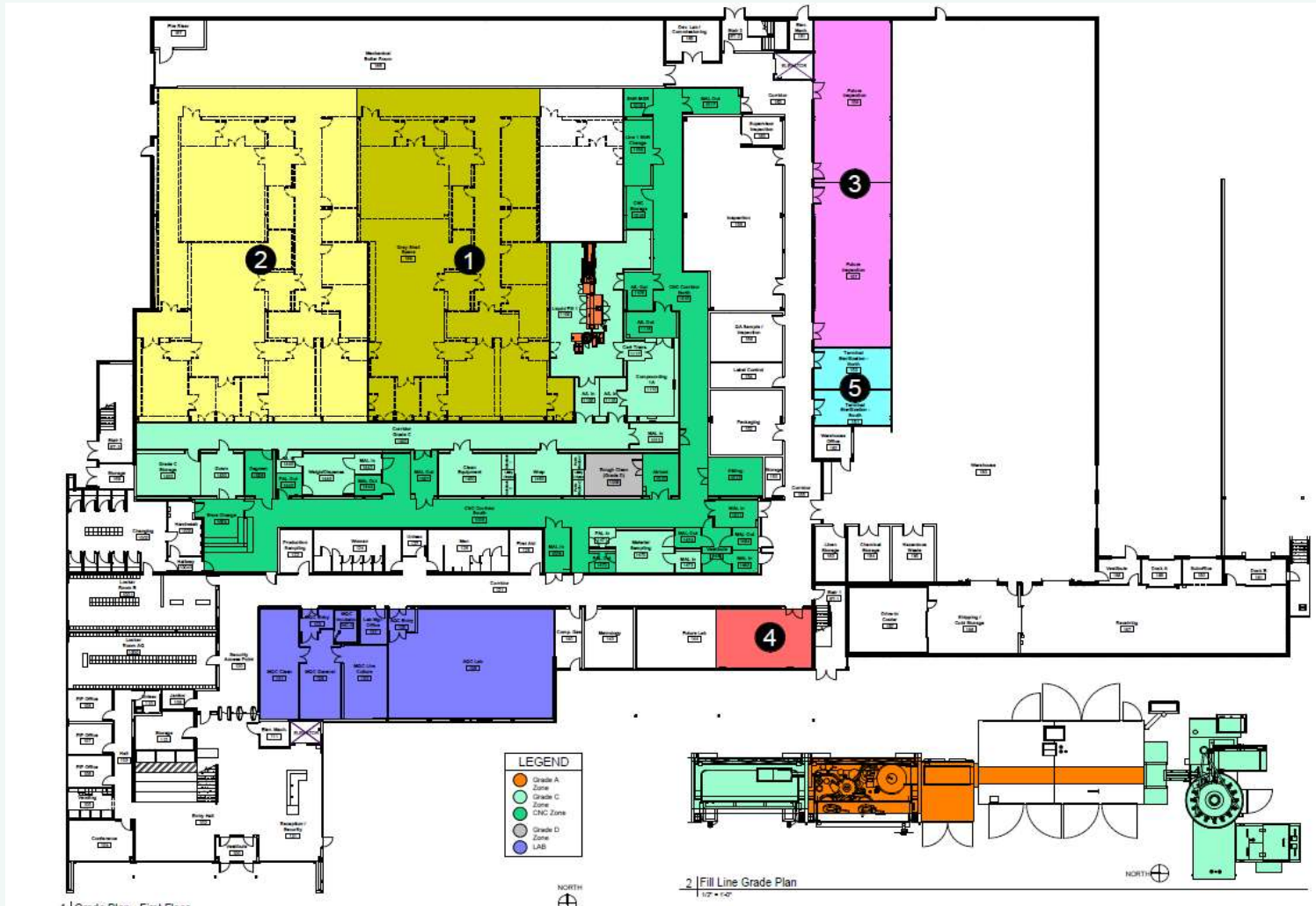
Surveillance

- **Agency & Industry Monitoring**

- **Automated Regulatory Intelligence Platform**

Guidance updates and enforcement

Plant 1 Expansion



Areas 1 & 2

- Two additional RTU lines for syringe, cartridge, vials

Area 3

- Expanded Visual Inspection

Area 4

- Stability Chamber Expansion

Area 5

- Terminal Sterilizer Expansion

RTU line for Syringe, Cartridge, Vials

- Manufacturing available in 2026
- Syringe fill volume 0.02 - 10 mL
 - 0.5 - 10 mL syringe
 - Up to 4,300 syringes/hour
- Total annual capacity all 3 lines: 45M units (vials, syringes, cartridges)

Additional Expansion Plans

- Automated, Semi-Automated Inspection - 2025
- Stability Chambers – 2025, or earlier based on client needs
- Terminal Sterilization – 2026, or earlier based on client needs

Campus Expansion



19 acres of adjacent land for future growth

Plant 2:

- 110,000 sq ft
- High-Speed Filling
- Prefilled syringes and cartridges
- Total annual capacity: 400M units

Plant 3:

- 125,000 sq ft
- High-Capacity Vials and Lyophilization
- Total annual capacity: 70M lyo vials, 200M liquid vials

Designed for Contract Manufacturing



- Fully integrated, high yield Bausch + Strobel VarioSys flex filling lines
- State-of-the-art SKAN isolator system
- Best in class facility with unidirectional personnel and product flows
- Multi-disciplinary project teams dedicated to clinical and commercial product transfers
- Captured grey shell space for additional filling lines

Achieve efficient performance with an expert team in a new state-of-the-art facility

We're Ready to Go

Vial Capacity Now Available

Thank you.

