General fees
Submission fee, per accession
Mailing fee, via US Mail or UPS ground (minimum charge, or actual if over)
Hazardous Shipping, Fedex, (required for infectious agents) (minimum charge, or actual if over)
Overnight, UPS, non-infectious agents (minimum charge, or actual if over)
Field Trip by VDL personnel (in-state only $150/hr – 2 hrs minimum – mileage NOT included)
Emergency testing available for some tests. Additional fees apply. Contact the lab for details.
Research rates/testing available. Contact the lab for details.

PATHOLOGY

Biopsy
Biopsy – small (1 site), less than 3 inches (1-5 slides) Each additional site $10.00
Biopsy – medium (1 site), 3-6 inches (6-10 slides) Each additional site $10.00
Biopsy – large (1 site), larger than 6 inches (11 or more slides) Each additional site $10.00
Biopsy – Skin (1-3 punch), 4-5 punch add $10, 6-10 punch add $10,
Biopsy, Lymphoma Panel, (Includes CD3 and CD79 IHC's), per site
Biopsy, Consultation (histology services not included)

Necropsy
Necropsy, gross ONLY (1-2 animals) no ancillary testing
Necropsy, gross and histopathology ONLY (1-2 animals) no ancillary testing
Necropsy, each additional animal over two, gross and histopathology ONLY

Necropsy Packages * may include UPTO 7 (non-clinical pathology) tests at no charge
Necropsy Package (1-2 animals) Includes limited ancillary testing*
Necropsy Package, poultry and game birds (up to 2 birds) includes limited ancillary testing*
Necropsy Package – Limbs includes limited ancillary testing*
Multiple tissues for multiple exams, (NIAB) (tissues of 1-2 animals) includes limited ancillary testing*

Additional fees that may apply to Necropsy or Necropsy Packages
Necropsy, Cosmetic (companion animals only), additional charge
Necropsy, Neurologic, Spinal Cord Exam (formerly CNS) additional charge
Necropsy, Bovine 30m+ spine removal, additional charge (if Neuro NOT ordered)
Necropsy, Emergency (after hours or weekends), additional charge
Euthanasia fee, Large Animal (when chemicals are necessary) additional charge
Euthanasia fee, Companion Animal, additional charge
Euthanasia fee, Avian (CO2) (1-4 birds) or Large animal no chemicals, additional charge
Incineration preparation fee, per pound (min $5.00) (if incineration required, call lab if questions)
Disposal Fee - animals not able to incinerate (small-less than 250#), per animal
Disposal Fee - animals not able to incinerate (large-greater than 250#), per animal
Disposal Fee - Bovine over 30 months and all Equine (per animal)
Return remains fee, shipping not included

Rabies
Rabies, brain removal for submission for rabies examination
Rabies FA Test

Other Pathology/Histology
Scrapie Specimen Collection (USDA), per animal (no matter size) additional charge
Scrolls for PCR testing
Decalcification – Light (Bone Marrow)
Decalcification/Keratin/Chitin/Nitric Acid – up to 4 cassettes
Decalcification – Large Tissue
H & E routine stain
Special stains, histopathology sections
Immunohistochemistry (per antigen) positive and negative slide included
Bovine viral diarrhea virus (BVDV) PI Screen by IHC, skin, ear notches (1-6 animals : each addtl above 6 – $3.50)

FORENSIC PATHOLOGY **NEW
**For cases involving potential animal cruelty or potential litigation, separate submission form, see website
Necropsy, gross and histopathology (All ancillary testing charged at full price)
Neurologic, Spinal Cord Exam (formerly CNS) additional charge
Forensic Consultation – Hourly charge
Long term tissue/body storage (up to 1 year), renewable

7/1/2017
CLINICAL PATHOLOGY

Panels
Canine Total Health Panel (CBC, Chem panel, UA, T4, Canine SNAP 4DX)
Feline Total Health Panel (CBC, Chem panel, UA, T4, Feline Heartworm)
Health Panel – canine, feline (CBC, Chem panel, UA, T4)
Panel – canine, feline (CBC, Chem panel, T4)
Coag Panel #1 – canine, feline (PT, PTT, Fibrinogen, Platelet)
Coag Panel #2 – canine (PT, PTT, Fibrinogen, Platelet, FDP)
Coag Panel #3 – canine (PT, PTT, Fibrinogen, FDP)
IMHA Panel – canine, feline (CBC, Direct Coombs, retic)

Profiles
Chemistry Profiles
General Profile
Canine (ALT, ALP, C-ALP, GGT, total bilirubin, BUN, Ca, glucose, albumin, total protein, creatinine, cholesterol, phosphorus, HCO3, Na, K, CI, triglycerides)
Equine/Large Animal (CK, AST, ALP, total bilirubin, BUN, glucose, Ca, albumin, Mg, Na, K, CI, total protein, phosphorus, creatinine, cholesterol, HCO3, GLDH, GGT, triglycerides)
Feline (ALP, total bilirubin, BUN, glucose, albumin, ALT, GGT, Ca, Na, K, CI, total protein, phosphorus, creatinine, cholesterol, HCO3, triglycerides)
Avian and Reptile available, contact lab for pricing and availability
Electrolyte Profile (Na, K, CI, Albumin, Ca, P, HCO3)
Alkalnine Phos Isoenzyme Profile – (Alk Phos, C-Alk Phos, Bone, Liver fractions)
Cortisol Induced Alkaline Phos (CIALP) Profile - (Alk Phos, C-Alk Phos)
Liver Profiles
Canine (ALT, ALP, C-ALP, GGT, total bilirubin, BUN, glucose, albumin, cholesterol)
Feline (ALT, ALP, GGT, total bilirubin, BUN, glucose, albumin, cholesterol)
General (ALT, ALP, GGT, total bilirubin, BUN, glucose, albumin, total protein, cholesterol)
Large Animal (AST, ALP, GGT, total bilirubin, albumin, cholesterol, GLDH, triglycerides)
Pre-Surgical Profile – (ALKP, ALT, albumin, BUN, creatinine, globulin, glucose, total protein)
Renal Profile (creatinine, BUN, total protein, albumin, Ca, phosphorus, Na, K, CI, total CO2)

Individual Chemistries
ALT (SGPT)
AST (SGOT)
Albumin
Alkaline phosphatase total
Beta-hydroxy-butyrate (BHB), serum, 8 sample minimum – Contact lab for availability ($10.25 each addtl)
Bicarbonate (total CO2)
Bile acid
Blood urea nitrogen (BUN)
Bromides
Calcium
Chloride (serum, CSF, fluid)
Cholesterol, total
Creatinine
Creatinine Phosphokinase (CPK) CK
Electrolyte clearance study (urine and serum)
Fructosamine
GLDH
Glucose
Lipase
Magnesium
Non-Esterified Fatty Acids (NEFA), serum, 8 sample minimum – Contact lab for availability ($10.25 each addtl)
Phenobarbital
Phosphorus
Potassium
Protein: Creatinine ratio (urine)
Sodium
Sodium, potassium, chloride
Total bilirubin
Total protein (fluid, urine)
Total protein (serum)
Triglycerides
Cytology
Aspirate and impression (slide) 1 site
   Aspirate and impression (slide), additional sites 2-5 (per site)
   Aspirate and impression (slide), site 6
   Aspirate and impression (slide), additional sites 7-9 (per site)
Blood parasite smear, EDTA blood
Bone marrow
Bronchial alveolar lavage (BAL) – right and left
Buffy Coat Exam
Fluid analysis with cytology
Transtracheal Wash (TTW)
Immunocytochemistry (ICC) (per antigen) (lymph node, bone marrow, or lesion)
Lymphoma package (cytology, CD3, CD79)
Alkaline Phosphatase stain
Cytospin smear preparation

Hematology
CBC, complete blood count (with differential)
CBC, complete blood count, avian/reptile (with differential)
Coombs, direct
Crossmatch
Platelet count
Retic count

Hemostasis
Fibrin Degradation Products (FDP)
Fibrinogen (blood in sodium citrate tube-blue top)
Prothrombin time (PT)
Partial Thromboplastin Time (PTT)
PT/PTT

Endocrine
Cortisol
   ACTH stimulation, 2 sera, 0.5 ml each ($13.50/each)
   ACTH stimulation, each additional
   HDDS, 2 sera, 0.5 ml each
   HDDS, each additional
   LDDS, 2 sera, 0.5 ml each
   LDDS, each additional
   Cortisol, 1 serum, 0.5 ml each
Progesterone, canine
T4 reflex, canine
T4 reflex with TSH, canine
T4 total canine, feline
Thyroid profile (endogenous TSH and T4), canine ONLY
TSH (endogenous), canine ONLY

Other Clinical Pathology
Canine Snap®4DX panel (includes E canis, heartworm, Lyme disease and Anaplasma phagocytophilum)
Feline Heartworm antibody
Pancreatic SNAP Lipase (Canine and Feline)
Urinalysis (routine)
Emergency fee, clinical pathology testing, after hours – technician
Emergency fee, Cytology, after hours – Clinical Pathologist

IMMUNOLOGY
Antinuclear antibody (ANA) IFA
Brucella
Johne’s ELISA, 1-3 samples each (samples 4 to 9 - $6.25 each) (bulk pricing: 10 or over - $6.25 each)
Mycoplasma hyopneumoniae ELISA
Neospora caninum ELISA
Neospora caninum IFA
Toxoplasma gondii IgG titer IFA
Toxoplasma gondii IgG/IgM screen IFA
Toxoplasma gondii IgG titer/IgM screen IFA
MICROBIOLOGY

Cultures
Aerobic Packages, must be ordered up front, additional susceptibilities at full price see below pricing
- Aerobic culture with one susceptibility (additional susceptibilities at full price)
- Aerobic culture up to 2 susceptibility (additional susceptibilities at full price)
- Aerobic culture up to 4 susceptibility (additional susceptibilities at full price)
Urine culture only, available only when urine is submitted
  - Urine Culture with susceptibility (warranted testing only)
- Aerobic culture only, no susceptibility
- Anaerobic culture only, no susceptibility
- Banking and slants for transport, per organism
- Campylobacter culture, PCR speciation
- Environmental Culture (post cleaning and disinfection)
- Mastitis evaluation (1-19 milk samples for culture), each
  - Mastitis evaluation (≥20 milk samples for culture), each
- Milk bulk tank, (qualitative and quantitative)
- Mycoplasma culture – see Molecular Microbiology Assays section
- Mycobacterium culture – (rapidly growing, not paratuberculosis or TB)
- Mycology, fungal culture
- Rapid Urea – Helicobacter pylori screen
- Salmonella culture – see Molecular Micro Assays section
- Shigella culture

Susceptibility Testing
- Susceptibility (Etest MIC), individual drug
- Susceptibility (Kirby Bauer), individual drug
- Susceptibility testing, (Kirby Bauer), ophthalmology isolates or fastidious organisms (add-on pricing)
- Susceptibility testing, full MIC w/ interpretation (companion, equine, porcine, bovine, poultry, urine) (add-on pricing)
- Susceptibility testing, milk samples (see VDL website for panel configurations)
- Susceptibility testing, anaerobic (see VDL website for panel configurations)
- Susceptibility testing, antifungal (see VDL website for panel configurations)
- Susceptibility testing, mycobacterium (see VDL website for panel configurations)

Molecular Microbiology Assays
- 16S-23S rRNA PCR (extraction and PCR)
  - 16S-23S rRNA gene sequencing for bacterial speciation (if PCR positive)
- 5S-18S rRNA PCR (extraction and PCR)
  - 5S-18S rRNA gene sequencing for fungal speciation (if PCR positive)
- Brucella PCR (positives include culture) one test
  - Brucella Card
  - Brucella BAPA
  - Brucella RAP
  - Brucella Rivanol
- Clostridium difficile toxin ELISA, per specimen
- Clostridium perfringens, toxin typing (DNA amplification)
- E. coli virulence testing by PCR (adhesions and toxins)
- Enterococcus Cytolysin PCR
- Eperythrozoonosis suis (Mycoplasma haemosuis, M. haemolamae ), DNA amplification
- Francisella tularensis PCR
- Geomyces destructans/White Nose Syndrome (WNS) PCR
- Hemobartonella (h) canis/felis, PCR (Mycoplasma haemocanis, M. haemofelis, M. haemominutum & M. turicensis)
- Haemophilus parasuis cephalosporin resistance – TEM PCR, per isolate
- Haemophilus parasuis tetracycline resistance – Tet PCR, per isolate
- Lawsonia PCR
- Leptospira Panel, companion animal urine rPCR and serum MAT (7 serovars) urine & serum together
- Leptospira screen MAT (7 serovars) – serology profile (companion or food animal)
- Leptospira microagglutination titer, per serovar
  - (autumnalis, bratislava, canicola, grippotyphosa, hardjo, icterohemorrhagiae, pomona)
- Leptospira PCR – pathogenic serovars detected in urine or biopsy
- Leptospira Titer Profile (1-8 samples), price per each
  - Leptospira Titer Profile (9 or more samples), price per each
- Listeria monocytogenes PCR, positives confirmed by culture, per specimen
- Methicillin resistance – mecA PCR, per isolate (MRSA, MRSP)
- Mycobacterial PCR
Mycobacterial speciation by sequencing (if PCR positive)
Mycoplasma PCR (includes some food animal species specific primers)
Mycoplasma speciation by rRNA sequencing
Pasteurella Toxin A PCR
Potomac Horse Fever nested PCR, per specimen
Rhodococcus equi rPCR
Salmonella PCR (positives include culture) one test
Salmonella PCR (positives include culture) 3 successive tests
Salmonella serotyping, NVSL, diagnostic cases – No Charge for test, Fedex shipping charges applicable
Strep equi M-protein gene PCR (includes Strep culture), 1-9 samples, price per each
Strep equi M-protein gene PCR (includes Strep culture), 10 or more samples, price per each
Streptococcus seM gene sequencing, per isolate
Streptococcus szp gene sequencing, per isolate
Tick Panel (includes Anaplasma, Babesia, Bartonella, Borrelia, Ehrlichia and Rickettsia) PCR
Individual tick PCRs – Anaplasma, Babesia, Bartonella, Borrelia, Ehrlichia, Rickettsia – price per each

**Special Microbiology Stains**
Acid-fast stain and examination
Gram Stain and evaluation
Lactophenol Cotton Blue (LPCB) fungal stain
Victoria Blue 4-R stain for Spirochetes (Brachyspira/Serpulina sp.)

**PARASITOLOGY**
Baermann technique
Cryptosporidium acid-fast stain, feces (includes flotation)
Fecal Egg count
Fecal flotation
Giardia
Microfilaria (Knott's)
Parasite identification

**VIROLOGY**
**Antigen Detection and Identification**
Bovine viral diarrhea virus (BVDV) (PI screen by VI and ICC), serum
Electron microscopy (EM, negative-staining), feces
Electron microscopy (transmission EM), tissue
Feline herpesvirus (VI and EM), tissue
Rotavirus antigen assay, feces, intestinal contents
Virus isolation (VI) in cell culture

**Fluorescent Antibody Tests**
Bluetongue virus (BTV), fresh tissue
Bovine adenovirus 1, fresh tissue
Bovine adenovirus 3, fresh tissue
Bovine adenovirus 5, fresh tissue
Bovine coronavirus (BCoV), fresh tissue (intestines: ileum, jejunum, colon)
Bovine herpesvirus type 1, (IBR) fresh tissue
Bovine herpesvirus (BHV) type 2, fresh tissue
Bovine herpesvirus (BHV) type 4, fresh tissue
Bovine papular stomatitis virus (BPSV), fresh tissue
Bovine parainfluenza virus type 3 (PI3), fresh tissue
Bovine parovirus (BPV), fresh tissue
Bovine pseudocowpox virus, fresh tissue
Bovine reovirus, fresh tissue
Bovine respiratory syncytial virus (BRSV), fresh tissue, swabs
Bovine rotavirus, fresh tissue
Bovine viral diarrhea virus (BVDV) types 1 and 2, fresh tissue
Canine adenovirus (types 1 and 2), fresh tissue
Canine coronavirus, fresh tissue
Canine distemper virus, fresh tissue, conjunctival scrapings
Canine herpesvirus, fresh tissue
Canine parainfluenza virus type 2, fresh tissue
Canine parovirus, fresh tissue
Epizootic hemorrhagic disease virus, fresh tissue
Equine adenovirus, fresh tissue
Equine herpesvirus type 1&4 (EHV-1 EHV-4, ERV, viral abortion), fresh tissue, nasal swab
Feline herpesvirus (FHV), fresh tissue, swabs
Feline infectious peritonitis (corona) virus (FIP, FECV), fresh tissue
Feline panleukopenia virus (FPV, parvovirus), fresh tissue
Ovine contagious ecthyma (ORF) (contagious pustular dermatitis), fresh tissue
Porcine adenovirus, fresh tissue
Porcine circovirus (PCV2), fresh tissue
Porcine hemagglutinating encephalomyelitis virus (HEV), fresh tissue
Porcine parvovirus (PPV), fresh tissue (fetus)
Porcine respiratory coronavirus (PRCV), fresh tissue
Porcine rotavirus, fresh tissue (intestine)
Porcine transmissible gastroenteritis virus (TGEV), fresh tissue
Pseudorabies virus (PRV), porcine or canine, fresh tissue
Swine influenza virus (SIV), fresh tissue

**Molecular Virology Assays**

Bluetongue virus BTV/EHDV multiplex (differentiates) rRT-PCR (whole blood/tissue), per animal
Bovine coronavirus (BCoV) rRT-PCR (feces, GI contents, intestine, nasal swab), per animal
Bovine respiratory disease panel (BRDP) rRT-PCR (BRSV, IBR, PI3)
Bovine viral diarrhea (BVDV) types 1 and 2 multiplex (differentiates) rRT-PCR (serum, plasma), per animal
Bovine viral diarrhea (BVDV) types 1 and 2 multiplex (differentiates) rRT-PCR (whole blood, tissue), per animal
Equine arteritis virus (EAV, EVA) rRT-PCR (lung), per animal
Equine arteritis virus (EAV, EVA) rRT-PCR (swabs), per animal
Equine herpesvirus type 1 (EHV 1) rPCR (swabs, CSF), per animal
Equine herpesvirus type 1 (EHV 1) rPCR (tissue, semen, whole blood), per animal
Equine herpesvirus type 4 (EHV 4) rPCR (tissue, semen, whole blood), per animal
Equine respiratory panel (EAV, EHV 1, EHV 4, Influenza A virus) (lung), per animal
Equine respiratory panel (EAV, EHV 1, EHV 4, Influenza A virus) (swabs), per animal
Influenza A virus matrix rRT-PCR (lung), per animal (avian, canine, feline, equine)
Influenza A virus matrix rRT-PCR (swabs), per animal (avian, canine, feline, equine)
Newcastle/Aviary Paramixovirus (NDV/APMV) rRT-PCR (lung)
Newcastle/Aviary Paramixovirus (NDV/APMV) rRT-PCR (swab)
Porcine circovirus type 2 rPCR (serum) – pooled, per pool
Porcine circovirus type 2 rPCR (serum), per sample
Porcine circovirus type 2 rPCR (tissue, raw semen, extended semen, pooled semen) – pooled, per pool
Porcine circovirus type 2 rPCR (tissue, raw semen, extended semen, pooled semen), per sample
Porcine delta coronavirus (PDCoV) rRT-PCR (feces, fecal swab, GI contents, intestine, OF, enviro), per sample
Porcine epidemic diarrhea virus (PEDV) rRT-PCR, (feces, GI contents, intestines, nasal swabs), per animal
Porcine transmissible gastroenteritis (TGEV) RT-PCR (feces, gi content, intestine, oral fluids, env swabs)
PRRSV ORF5 sequence alignment from a case to previous cases
PRRSV ORF5 sequence profile (complete ORF5 sequencing and alignment to reference stains)
PRRSV rRT-PCR multiplex (differentiates) (oral fluids), per animal
PRRSV rRT-PCR multiplex (differentiates) (pooled sera), per sample
PRRSV rRT-PCR multiplex (differentiates) (pooled tissue, raw semen, extended semen), per sample
PRRSV rRT-PCR multiplex (differentiates) (serum), per animal
PRRSV rRT-PCR multiplex (differentiates) (tissue, raw semen, extended semen), per animal
Swine Enteric Corona Disease (SECD) rRT-PCR Panel (PEDV, PDCoV and TGEV) submitted at the same time

**Serological Assays for Anti-Virus Antibodies (serum)**

Bluetongue virus (BTV) ELISA
Bovine herpesvirus type 1 (BHV 1, IBR) SN titer
Bovine leukosis virus (BLV) AGID OR ELISA
Bovine parainfluenza virus type 3 (PI3) SN titer
Bovine viral diarrhea virus (BVDV) type 1 or 2 endpoint titer, per sample
Bovine viral diarrhea virus (BVDV) type 1 or 2 SN titer
Caprine arthritis encephalitis (CAE) virus AGID
Encephalomyocarditis (EMC) virus, SN titer (porcine only)
Epizootic hemorrhagic disease virus (EHD) AGID
Equine arteritis virus (EAV, EVA) SN titer
Equine herpesvirus (EHV-1/EHV-4) SN titer
Equine infectious anemia (EIA/Coggins) virus AGID serology
Equine infectious anemia (EIA/Coggins) virus ELISA-Ab
Feline calicivirus (FCV) SN titer
Feline herpesvirus (FHV1) type 1 SN titer
<table>
<thead>
<tr>
<th>Test Description</th>
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<tbody>
<tr>
<td>Feline immunodeficiency virus (FIV) ELISA-Ab</td>
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<tr>
<td>Feline infectious peritonitis (FIP) virus IFA antibody screen (no titer), serum or plasma</td>
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<tr>
<td>Feline infectious peritonitis virus (FIP) virus IFA antibody titer</td>
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<tr>
<td>Feline leukemia virus (FeLV) ELISA-Ag</td>
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<tr>
<td>Feline profile I (FIP, FIV, FeLV, Toxoplasmosis IgG &amp; IgM) ELISA and IFA</td>
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<tr>
<td>Feline profile II (FIP, FeLV) ELISA</td>
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<tr>
<td>Ovine progressive pneumonia (OPP) virus AGID</td>
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<td>Porcine transmissible gastroenteritis (TGE) virus SN titer</td>
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<td>PRRSV antibody screen ELISA (Oral Fluids)</td>
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<td>PRRSV antibody screen ELISA (Serum)</td>
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<td>PRRSV antibody titer IFA (U.S. and European strain)</td>
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<tr>
<td>Pseudorabies virus g1</td>
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<td>Pseudorabies virus gB</td>
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**WILDLIFE EPIDEMIOLOGY**  **NEW** more tests in development, check website for latest offerings

- Ophidiomyces qPCR
- Bd (Chytrid) qPCR
- Bsal Chytrid qPCR
- Box Turtle Upper Respiratory Panel (Fv3, Terrapene Herpesvirus 1 and Box Turtle Mycoplasma qPCR's)
- FV3 Ranavirus qPCR
- Terrapene Herpesvirus 1 qPCR
- Box Turtle Mycoplasma qPCR
- Chelonian herpesvirus consensus PCR
  - DNA gene sequencing for speciation (if Consensus PCR positive)